

The University of Chicago

FINANCIAL ASSISTANCE
TO STUDENTS IN THE UNIVERSITY
OF CHICAGO

A DISSERTATION SUBMITTED TO THE FACULTY
OF THE DIVISION OF THE SOCIAL SCIENCES
IN CANDIDACY FOR THE DEGREE OF DOCTOR
OF PHILOSOPHY

DEPARTMENT OF EDUCATION

1936

By
EDWARD ALLEN WIGHT

Private Edition, Distributed by
THE UNIVERSITY OF CHICAGO LIBRARIES
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CHAPTER I

THE PROBLEM

Origin of the Problem

Problems relating to the financial assistance of students have engaged the attention of administrative officers and members of the faculty since the opening of the University of Chicago in the Autumn of 1892. One of the first of these problems involved the size of the fellowship stipend. In its first year the University established twenty fellowships yielding \$520 each and twenty yielding \$320 each.¹ A few individuals also made gifts for special fellowships.² In order to provide for the increasing numbers who applied for the awards the practise of dividing the amounts into a larger number of smaller stipends soon developed. A special committee of the faculty cited the fact that the proportion of awards as large as \$520 steadily declined from 55 per cent in 1892-1893 to 22 per cent in 1897-1898, and recommended that steps be taken to increase the number of awards of the largest amount.³

Another problem concerned the wisdom of requiring service of Fellows.⁴ Variations in the amount and type of service required by different departments soon developed, and questions arose regarding the value to the Fellows of the required service.

¹"The Graduate Schools of the University," Official Bulletin, No. 4, April, 1892, issued several months in advance of the opening of the University, listed the value of the fellowships as \$500 and \$300. Later publications gave the figures as \$520 and \$320. See, for example, "Graduate Schools and Colleges Edition," Quarterly Calendar of the University of Chicago, December, 1892, p. 6, and the Annual Register, 1893-1894, p. 162.

²Six special fellowships, with stipends ranging from \$300 to \$500, are listed in the Annual Register, 1893-1894, p. 162.

³The President's Report, 1898-1899, pp. xxxi-xxxii.

⁴Ibid., p. xxxiii.

Scholarships for undergraduate students were not established until the third year of the University's existence.¹ In a relatively short time problems in connection with the selection of scholarship holders were sufficiently acute to elicit the following comment by the Dean of the Senior Colleges in his report to the President of the University:

These scholarships represent a combined cash value of nearly \$5,000, not counting the Divinity Scholarships. The remarkable thing about them, however, is not their munificence, but the failure of the departments to take any very active interest in them. . . .in some instances the assignment of the scholarship has been left to the lobbying of the ambitious student; in others it has gone by default, while in some departments the officers have scurried about at the last moment to find a worthy nominee. As a matter of justice to students, some uniform method of obtaining the most worthy candidate should be fixed upon and adhered to rigidly.²

The Committee on Fellowships and Scholarships was appointed in May, 1902, when President Harper insisted that he be relieved of the details of administering this phase of the program of student aid.³ In the Schools and Colleges of Arts, Literature, and Science during this year (1901-1902) the expenditure for scholarships and fellowships was \$56,596.28⁴ and the income from tuition of the 3,471 students enrolled⁵ was \$165,411.58.⁶ Endowment for scholarships amounted to only \$39,000 and for fellowships, \$22,000.⁷

In his first decennial report, President Harper summarized the "essential facts relating to assistance rendered students by the University," and pointed out three problems connected with the distribution of fellowships and scholarships:

- (a) The question as to the amount of the stipend.
- (b) The question of duration of the Scholarship.
- (c) The kind and amount of service expected from the Scholar.⁸

¹"Important official actions of the Board of Trustees," in The Quarterly Calendar, Vol. III, No. 1 (May, 1894), pp. 21-22.

²The President's Report, 1898-1899, p. 70.

³The President's Report, 1892-1902, pp. cxxi-cxxii.

⁴Ibid., p. 478.

⁵Ibid., p. 11.

⁶Ibid., p. 480.

⁷Ibid., pp. 475-76.

⁸Ibid., pp. cxvii ff.

The growth of the University since 1902 has been rapid¹ and has added to the complexity of administering financial assistance to students. The total enrolment increased from 4,580 in 1903-1904 to 14,242 in 1929-1930.² Total budget expenditures mounted from \$1,032,533³ to \$7,199,033⁴ over these years. During this period quarterly tuition in the Colleges of Arts, Literature, and Science was increased from \$40 to \$100, while the estimate of an "average" student budget for three quarters, as printed in official University publications, rose from \$396 to \$1125.⁵

In the face of the increasing cost of higher education at the University of Chicago it becomes important to know whether corresponding provision has been made for financial assistance to students. Table I shows for the Colleges of Arts, Literature, and Science the receipts per student-quarter⁶ from tuition, the expenditures per student-quarter for scholarships, fellowships, and tuition remissions, and the percentage that student-aid expenditures are of tuition receipts.

For the period from 1903-1904 to 1929-1930 the increase in tuition receipts per student-quarter is 165 per cent, while student aid expenditures increased only 20 per cent. Obviously, increases in tuition charges have far outstripped appropriations for student aid. Whereas in 1903-1904 the University spent one dollar for student aid for each \$2.91 received in tuition, in 1929-1930 one dollar for student aid was expended for each \$6.43

¹A number of studies of the growth of the University are reported in *Trends in University Growth*, by Floyd W. Reeves, Ernest C. Miller, and John Dale Russell. Chicago: The University of Chicago Press, 1933.

²Ibid., p. 209.

³The President's Report, 1902-1904, p. 253.

⁴The President's Report, 1929-1930, p. 183.

⁵The items included in the estimate are: tuition, rent and care of room, board, laundry, and textbooks and supplies. A figure for "incidentals" is included for the more recent year. The data are from the Annual Register, 1903-1904, p. 86, and Announcements, The Colleges and Graduate Schools of Arts, Literature, and Science, XXIX, No. 25 (May 25, 1929), p. 9.

⁶The School year is divided into four quarters. A "student-quarter" is one student, enrolled for one quarter. This measure weights the enrolment figure in terms of the number of quarters each student was enrolled during a given year.

TABLE I

RECEIPTS FROM TUITION AND EXPENDITURES FOR STUDENT AID^A
PER STUDENT-QUARTER, IN THE COLLEGES AND GRADUATE
SCHOOLS OF ARTS, LITERATURE, AND SCIENCE^B
FOR SELECTED YEARS^C

Year	Tuition Receipts per Student- Quarter	Student-Aid Expenditures per Student- Quarter	Percentage that Student-Aid Expenditures are of Tuition Receipts
1903-1904	\$27.95	\$ 9.61	34.5
1908-1909	32.68	9.16	28.8
1913-1914	36.95	8.82	23.9
1918-1919	40.01	7.05	17.5
1923-1924	53.08	12.64	23.5
1928-1929	71.00	10.83	15.5
1929-1930	74.09	11.52	15.9

^AScholarships, fellowships, and tuition remissions are included.

^BEnrolments in University College are not included.

^CData are taken from the reports of administrative officers, published in the President's Report.

received in tuition fees. A graphic representation of the ever-widening gap between receipts from tuition and expenditures for student aid is given in Figure 1.

With the increasing charges for tuition and fees, and the general rise in the cost of residence at the University, one of the practical selective factors conditioning attendance at the institution has come to be the financial resources of the student. Attendance at and graduation from the University of Chicago become increasingly difficult for the impecunious student. The desire of the University to service adequately its constituency, to raise its standards of scholarship by attracting especially capable students, and to foster contributions to knowledge by the research of outstanding scholars and students makes doubly important a thorough study of the problems of financial aid to students.

Purpose of the Study

The purposes of the study are: (1) to describe briefly the types of aid to students and the administrative machinery for

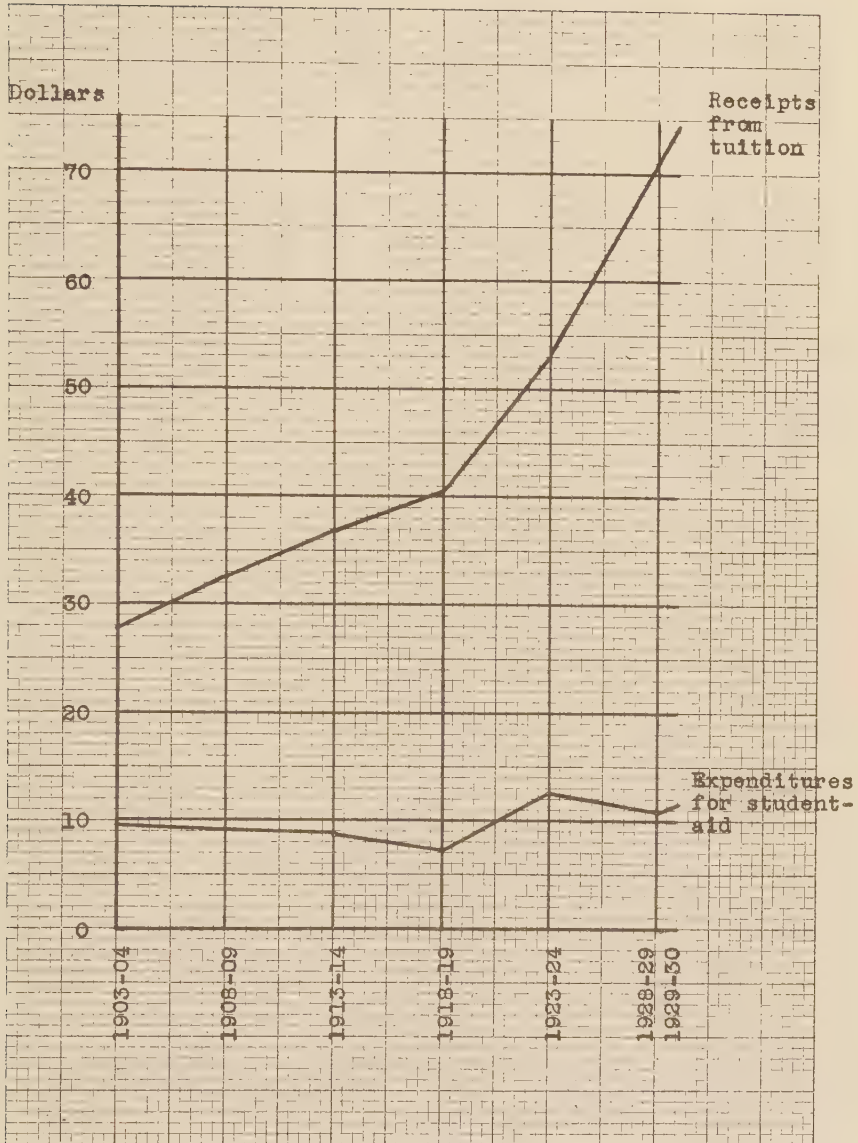


Fig. 1.--Receipts per student-quarter from tuition, and expenditures per student-quarter for scholarships, fellowships, and tuition remissions, for selected years in the Colleges and Graduate Schools of Arts, Literature, and Science.

selecting the students aided; (2) to examine the effectiveness of the administration of financial assistance as reflected in such measurable factors as the number of students aided and the amounts of aid according to University status, classification, purpose and sources of funds; and, for the Schools of Arts, Literature, and Science, (3) to evaluate the adequacy of the awards and (4) the relative success of persons selected to receive aid.

Scope of the Study

In the consideration of types of aid, method of selecting students aided, number of persons aided, and expenditures for aid, data from all of the Schools and Colleges of the University, with the exception of University College (the downtown teaching center) are included. Discussion of the adequacy of grants and services rendered by and achievement of grantees is limited to holders of scholarships and fellowships in the Schools and Colleges of Arts, Literature, and Science.

The study was begun and most of the data collected during 1930-1931. Financial data and enrolments were not then available for years later than 1929-1930. Information was secured from students receiving aid during the Winter Quarter of 1930-1931. Reorganization of the University took effect after this date, so that the administration is described as it existed at the time the data were gathered.¹ Appendix A describes the major changes in the administration of student aid that have been made between 1930-1931 and 1935-1936, inclusive. Footnotes in the main body of the study refer to the sections of the Appendix which describe the most important of these changes.

In a few cases the change in administrative organization of the University has influenced the grouping of data for this study. For example, in tables that present data for each department in Arts, Literature, and Science, the departments are grouped in the present divisional organization rather than in the Graduate Schools of Arts, Literature, and Science. This procedure effects in no way the departmental figures or the total for the Graduate Schools.

¹For a description of the "new plan" in arts, literature, and science see Chauncey S. Boucher, The Chicago College Plan. Chicago: The University of Chicago Press, 1935.

Sources of Data

The chief sources of data for this study are: information secured by means of an inquiry blank addressed to students receiving grants from the University during the Winter Quarter of 1930-1931; published reports of the University, such as the Comptroller's Report, the President's Report, the Annual Register, and Circulars of Information and Announcements; unprinted studies made by University officials; special bulletins issued by the University; and records in the offices of the Registrar, the Recorder and Examiner, the Cashier, the Committee on Fellowships and Scholarships, the deans of the professional schools, and the Comptroller. Interviews with various members of the University connected with the administration of student aid have supplemented the other sources of data.

CHAPTER II

TYPES OF AID AND METHODS OF SELECTING STUDENTS AIDED

The forms of financial aid offered to students by the University are of seven types: (1) scholarships, (2) fellowships, (3) assistantships, (4) tuition remissions, (5) loans, (6) prizes, and (7) employment, either in University or outside service.

This chapter will deal with aid of the first four types. Financial aid by means of loans differs essentially from any of the other types of aid and will be given separate treatment in Chapter VIII.

Since the prizes are relatively few in number and are not administered as a part of the student-aid program, this form of aid is omitted from consideration in the investigation. Student employment is also excluded, except as some service requirement may be attached to scholarships, fellowships, or assistantships. The general policy of the University is to consider the employment of students as a business transaction, with only minor consideration to the student-status.

Types of Aid

Scholarships.--The term scholarship as used in this study means either an award of financial aid with the accompanying title of scholar, or, when used as a proper noun, the designation of a specific type of award, such as Noyes Scholarship. It has been the general policy of the University to award scholarships primarily on the basis of evidence of achievement in study, and to use some other name to designate aid given largely on the basis of financial need without regard to scholastic achievement. Any exception to this general policy will be pointed out in this chapter.

Table II lists by name the principal types of scholarships available at the University of Chicago. As is shown in this table, some of the scholarships for which the income is provided by special endowments are available without regard to the classifications in which students are registered in the University. Scholarships

TABLE II

SUMMARY OF TYPES OF SCHOLARSHIPS OFFERED IN ARTS, LITERATURE, AND SCIENCE, AND IN THE PROFESSIONAL SCHOOLS, 1930-1931

Type of Scholarship in Each School or College	Classification of Students Eligible*
Arts, Literature, and Science	Arts, Literature, and Science
Examination Entrance.....	Entering freshman
Honor Entrance.....	Entering freshman
Two-Year Honor.....	Entering freshman and second-year holders
Second-Year Honor.....	Sophomore
Third-Year Honor.....	Junior
Fourth-Year Honor.....	Senior
Graduate Honor.....	Graduate
Service.....	Graduate
Endowed and Annual.....	All classes, except where limited by terms of donors of funds
Law School	
Service.....	Law School
Half-Scholarship.....	First Year Law
School of Business	
Endowed.....	School of Business
Service.....	School of Business
Divinity School	
Endowed.....	Divinity School
Tuition.....	Divinity School
Rush Medical College	
Endowed.....	Rush Medical College
Social Service Administration	
Endowed.....	Social Service Administration
Graduate Library School.....	No scholarships offered
All Schools and Colleges	
Noyes.....	All classifications, except Home-Study and unclassified
Endowed and Annual.....	All classifications, except where limited by terms of donor of funds

*The undergraduate classifications listed are the traditional ones, rather than those of the University of Chicago.

are available in each of the professional schools, except the Graduate Library School, which offers fellowships for advanced students.

The variety of scholarships offered in the Colleges and Graduate Schools of Arts, Literature, and Science is such that a brief description of these awards is desirable.

Examination Entrance Scholarships.¹--These are awarded to the successful contestants in special examinations given under the supervision of the University. The subjects in which examinations are given and the subject matter included are as follows: (a) English Composition and Literature, covering college entrance requirements; (b) physics; (c) chemistry; (d) botany; and (e) zoology, each based on at least one year of work in high school; (f) mathematics, algebra through quadratics, and plane geometry; (g) Latin, based on three or four years of work; (h) German; (i) French; and (j) Spanish, each based on two, three, or four years of work; and (k) American History, covering at least one year of work.

Written examinations are supplemented by spoken tests in the three modern languages. The modern-language examinations are not given outside of Chicago because of the difficulties of conducting the oral tests. Only members of the current senior classes (including those graduated in January or February) of secondary schools, who are recommended by their principals on the basis of general scholarship as well as special attainments, are eligible to compete. The University reserves the right to reject in advance any student whose general scholarship record is not superior. Each student is examined in only one subject,² and tests are given only in subjects in which a total of fifteen or more students make application. The scholarship examinations are given in the spring of each year on the University campus, and in a number of other centers. At least one award of full tuition for a

¹The name of this award has been changed to High-School Competitive Examination Scholarship. See Appendix A, for a description of the method of selection in 1935-1936.

²Each candidate now takes examinations in three of ten subjects; botany and zoology have been combined into an examination in biology. A special bulletin, Scholarships for High-School Graduates, gives complete information.

year is given in each subject, and additional awards for one or more quarters are also assigned, depending on the number of students taking part and the relative excellence of the papers written in each subject.

Honor Entrance Scholarships.--These scholarships are awarded on the basis of the record made in secondary school. High scholarship is essential for consideration, and awards are rarely made to students who rank below the top five per cent in their graduating classes. Elements of character such as leadership in school and community activities are also considered in making the selection. Awards usually cover tuition for the entire year, but partial scholarships are also given.

Two-Year Honor Scholarships.--These scholarships were first awarded to men entering the University as freshmen in 1929-1930, when interested alumni provided funds for thirty full tuition awards. The basis of selection is: strong scholarship, including rank in the highest third of the graduating class; leadership in school and community activities, evidenced by achievement in several types of activities such as athletics, dramatics, publications, class offices, student government, or other positions of honor or service in the school; and well-balanced development and general promise of service in college and in life after college. As the name implies, these awards are made for a two-year period, and they provide full tuition fees.

Second-, Third-, and Fourth-Year Honor Scholarships.¹--These awards are based almost entirely on the academic record as measured by marks made in courses in the University. They are awarded at the end of the first, second, and third college years, respectively, for one or more quarters of the following year. The scholarships are ordinarily given to the students who rank highest in grade-point average in each class, up to the limit of the funds available. Many of the awards cover full tuition for a year of

¹These scholarships are now called Second-Year Honor, Divisional Honor Entrance, and Divisional Honor, respectively. Scholastic rank for the first is based on the comprehensive examinations taken in the first year; for the second, on the examinations required for the College Certificate; and for the third, on the first year's work in a Division. Financial need is also considered. See the Appendix A for additional information regarding the selection of students to receive these awards.

three quarters, but smaller awards are frequently made to students whose position in the scholarship scale is somewhat removed from the highest rank.

Graduate Honor Scholarships.--Each department in the Graduate Schools has the privilege of nominating a student who is for the year the honor student of that department. The award covers tuition fees for three quarters. Students who are graduated from the Colleges of the University during the year and continue in residence for graduate study are eligible for appointment. High scholastic standing and interest in research are considered in making the selections.

Endowed and Annual Scholarships.--Funds for these scholarships are provided by the income from endowment or by special gifts. The scholarships usually bear the name of the donor, or of some one honored by the donor of the funds. Frequently the terms of the gift specify certain restrictions to be observed in selecting the students to receive the financial aid. The Louise Roth Memorial Scholarship, for example, provides tuition aid preferably to one who is a graduate of the John Marshall High School, of Chicago. Restrictions on other awards include specifications regarding sex, race, financial need, University classification, department of specialization, and the like.

The La Verne Noyes Foundation provided an endowment of \$1,500,000, in 1918, for scholarships for deserving students who served in the army or navy of the United States during the World War, or for descendants by blood of persons who rendered such service. The awards are available to students of both sexes in all the Colleges and Graduate and Professional Schools. The purposes of this fund differ so markedly from those of the other endowed scholarships, and the numbers served are so large, that reference to these awards will be made by name, and the term "endowed scholarship" will be used in this study to denote the endowed awards other than Noyes Scholarships.

Service Scholarships.--As the name implies, these awards carry a requirement of service in return for the stipend. The scholarships are available in the Graduate Schools of Arts, Literature, and Science, and in certain of the professional schools. The service is rendered under the supervision of the department in charge of the principal studies of the student, and usually amounts to approximately eighty hours per quarter.

Although the stipend is equivalent to the quarterly tuition charges, the amount is not paid until the end of the quarter, whereas other scholarships typically provide tuition vouchers at the beginning of the quarter. Holders of service scholarships must therefore make arrangements for meeting at least the first quarterly tuition charges from other sources than the scholarship stipend.

Fellowships.-- The term fellowship is used in this study to denote a grant of funds to a student with the accompanying title of fellow. Fellowships awarded to non-students are excluded from consideration, although there are a number of grants of this type to persons who are engaged in research at the University. The Seymour Coman Fellowships, for example, are used for the furtherance of scientific research, and are awarded to persons who have the qualifications of the degree of Doctor of Medicine or of Doctor of Philosophy. A member of the faculty of the University may receive such an award, and devote his entire time to research.

The fellowship at the University is limited to students above the college level, either in the graduate or the professional schools. Proficiency in some department is a prerequisite, and resident study of at least one year after receiving the Bachelor's degree is desirable. Special weight is given to indications of ability to conduct original investigation. A fellowship is available for any three of the four quarters of the year, beginning with the Summer Quarter. After the beginning of the academic year, awards are made for periods of less than three quarters. Acceptance of a fellowship is conditioned by agreement to devote full time to graduate study unless special permission for other work is secured through written application.

University Fellowships.--These fellowships are awarded in the Graduate Schools of Arts, Literature, and Science. The University asks of the fellow a modicum of service in work as an instructor, as a reader of examination and other papers, on a University journal, or in one of the departmental laboratories, museums, or libraries. A fellow is not expected to devote so much time to this service as to interfere seriously with his own study. The stipends range in value from \$300, the tuition fees of a graduate student for three quarters, to an amount in excess of those fees to cover a part of the student's living expenses.

Full tuition must be paid during the tenure of the appointment, regardless of the amount of class or research work for which the fellow is registered.

Special Fellowships.--These awards are made possible by the provisions of special gifts designated for the purpose. The donor usually specifies the department in which the recipient of the award shall pursue his major studies, or the field in which research shall be undertaken. The Catherine Cleveland Fellowship, for example, is for the furtherance of research in history. Service is not ordinarily required of students holding special fellowships.

Professional School Fellowships.--Under this category are included all fellowships to students in the professional schools. Fellowships are awarded by all of the professional schools, although the fellowship funds of Rush Medical College are devoted almost exclusively to the promotion of research by persons not registered as students; i.e., by members of the staff or by practicing physicians or research workers. The administration of the awards is usually through the offices of the deans of the respective schools. The amount of the stipend and the requirement of service vary among the different professional schools.

Assistantships.--Assistantships are awarded in the Graduate Schools of Arts, Literature, and Science, and in certain of the professional schools. Appointments, ordinarily to those persons who have begun residence at the University, are made by the chairman or head of a department, or by the dean of a professional school, subject to the approval of the President and the Board of Trustees. An assistant has official University rank, below that of an instructor. The term assistant is loosely used, however, and may denote persons whose duties vary from routine service to instruction and independent research. The data of this report refer only to assistants who are registered as students in the University, and who receive official appointment according to the usual routine.

Tuition Remissions.¹--Tuition remissions are granted under terms specified by the Board of Trustees. A brief tabular summary of the regulations of the Board regarding tuition remissions is

¹See Appendix A for the regulations regarding tuition remissions in force in 1935-1936.

given in Table III. The regulations given are those relating to tuition fees in the undergraduate, graduate, and professional schools of the University, omitting consideration of remission of fees in the schools of the University below the college level. The Secretary of the Board issues, on the application of persons eligible under the rules of the Board, a statement of the amount of remission of tuition, and this is accepted by the Cashier in payment of tuition charges.

TABLE III
SUMMARY OF REGULATIONS OF THE BOARD OF TRUSTEES
GOVERNING TUITION REMISSIONS, 1930-1931¹

University Status	Amount of Tuition Fee Remitted
Faculty or administrative officer	Entire fee
Wife of faculty or administrative officer	Entire fee
Son or daughter of faculty or administrative officer	Undergraduate, one-half; graduate, none.
Employee ²	One-half of fee for one major
Visitor with Ph.D. degree	Entire fee for work in department granting degree, upon recommendation of department
Faculty of co-operating secondary schools	One-half of fee
Staff of Field Museum	Entire fee
Staff of The Art Institute of Chicago	Entire fee

¹See Table LXVIII in Appendix A for a summary of the regulations in force in 1935-1936.

²Persons in this category who took advantage of the tuition remission were chiefly members of the secretarial and clerical staff.

Reduction in tuition charges to students in the Divinity School, under the agreement in force between the University, The Divinity School, and the Baptist Theological Union, is also a form of remission of tuition. The remission customarily amounts to \$80 of the \$100 tuition fee for one quarter, or \$30 of the \$50 fee for one term of the Summer Quarter. Tuition remissions are also used

in the School of Social Service Administration and in the Law School, under the supervision of the respective deans. The President's remission is a small fund for special cases which come to the attention of the President of the University. In all cases, however, the tuition remissions are governed by regulations of the Board of Trustees of the University.

The tuition remission carries with it no title or University status comparable to that of scholar, fellow, or assistant; however, a considerable number of remissions are made to persons who are members of the faculty or who are administrative officers in the University. The recipients of student aid who have no other official title will therefore be referred to in this study as "students," when reference is made to University status or rank. This nomenclature does not imply that those bearing other titles are not registered as students, since the data presented in all cases (except as noted in Chapter VIII, dealing with loans) refer only to persons registered as students in the University.

Selection of Students Aided¹

It was pointed out in preceding sections of this chapter that assistants are officers in the University, elected by the Board on nomination of the President, and that tuition remissions are granted under specific regulations of the Board. No special machinery is required for the administration of these forms of aid, and no special academic attainments are set forth. The discussion in the remainder of this chapter will, therefore, be limited to the methods of selecting students to receive scholarships and fellowships.

The chief agencies responsible for the selection of scholars and fellows are the Committee on Fellowships and Scholarships, the Scholarship Committee in the Colleges, the University Examiner, and administrative officers or standing committees in the various professional schools. Responsibility for the selection of holders of certain special scholarships and fellowships rests with the donors of funds, special committees, or with the President of the University.

¹See the section having the same title in Appendix A for a description of the agencies responsible for the selection of scholars and fellows in 1935-1936.

Committee on Fellowships and Scholarships.¹--The Committee on Fellowships and Scholarships was organized in 1902, when President Harper insisted that he be relieved of the duty of selecting scholars and fellows. At the request of the members of the Committee, the President agreed to serve with the other members. The membership of the Committee for 1930-1931 was composed of the following: the Vice-President and Dean of Faculties (Chairman), the Assistant to the President, the University Recorder and Examiner, and nine Deans in the Colleges and Graduate and Professional Schools. The Committee does not function actively, however; its duties are performed largely by the clerical employee who acts as secretary of the Committee. No record was found of minutes of any of the meetings of the Committee. The chief functions of the Committee are to receive applications for scholarships and fellowships, to gather information regarding applicants for aid, to make awards to students or approve selection made by other agencies, to supervise the distribution of tuition vouchers to students awarded scholarships, to certify to the Comptroller the payments due to Fellows, to keep the official records, and to act as a clearing house for information to students and University administrative officers.

The secretary of the Committee on Fellowships and Scholarships handles most of the work of that Committee. Applications for all scholarships and fellowships are filed with the secretary, and in case selection is administered by other officers, the applications and any other pertinent data are referred to the proper authority. Applications for fellowships are frequently accompanied by manuscripts, theses, and other evidences of ability to conduct research.

Applications for service scholarships and for fellowships are referred to the secretaries of the departments in which the students concerned are doing their major work, as indicated on the application blanks. At departmental meetings the various departments take action on the applications, making assignments within the limits of the departmental budget appropriation. The lists of scholars and fellows selected are returned to the secretary of the Committee, who handles the correspondence with applicants. In

¹Appendix A gives information about the composition and work of the Committee as it existed in 1935-1936.

each case the applicant is notified of the action taken. Announcement of the awards for the following year is made about the first of April, and successful applicants are asked to indicate the acceptance or refusal within a period of two weeks. When resignations occur, the Chairman or Head of the department usually makes the second choice.

There were on file with the Committee 554 applications for fellowships in the Graduate Schools of Arts, Literature, and Science for 1929-1930, and 621 applications for the following year. Table IV shows by Divisions and Departments the number of applications and the number of awards of University and special fellowships announced by the Committee on April 1, 1929 and on the same date of 1930. Applications for or appointments to a small number of special fellowships which did not go through the hands of the Committee are not included.

Of the 544 applications for fellowships for 1929-1930 on which action was taken 95 awards of University fellowships and 9 awards of special fellowships were made; 19.2 per cent of the total applicants therefore received fellowships. Of the 440 remaining applicants, 68 were selected for service scholarships, 52 for assistantships, and 321 were denied awards. For 1930-1931 the applications for fellowships were disposed of as follows: 94 were selected as University and 16 as special fellows, 72 received service scholarships, 36 were appointed as assistants, and 386 were given no awards.

The applications for and appointments to service scholarships on April 1, 1929 and 1930, in the Graduate Schools of Arts, Literature, and Science are shown in Table V. A student in applying for a fellowship may also write "or scholarship" on the application blank and be considered for either a fellowship or a scholarship. The data of this table show applications for scholarships only, but include all appointments.

The number of appointments for service scholarships for each of the years 1929-1930 and 1930-1931 was over a hundred, but approximately 63 per cent of those appointed were selected from students who applied for fellowships "or scholarships." The percentage of those applying for scholarships only who received no award is 66.1 for 1929-1930 and 71.0 for 1930-1931. In the latter year three appointments to assistantships were made from among the group applying for scholarships.

TABLE IV

NUMBER OF APPLICATIONS FOR AND APPOINTMENTS TO FELLOWSHIPS
IN THE GRADUATE SCHOOLS OF ARTS, LITERATURE, AND SCIENCE
ON APRIL 1, 1929 AND 1930

Division and Department	Applications for		Appointments for	
	1929-1930	1930-1931	1929-1930	1930-1931
Biological Sciences.....	106	106	24	21
Anatomy.....	0	1	0	0
Botany.....	18	15	5	4
Home Economics.....	18	21	5	3
Hygiene and Bacteriology	9	11	3	3
Pathology.....	0	0	0	0
Physiology.....	2	2	1	1
Physiological Chemistry	9	8	3	3
Psychology.....	17	20	2	2
Zoology.....	33	28	5	5
Humanities.....	113	131	26	26
Art.....	0	2	0	1
Comparative Literature.	1	2	1	1
Comparative Philology..	4	3	1	1
Comparative Religion...	5	2	1	1
English.....	37	49	4	4
Germanics.....	7	10	2	2
Greek.....	6	6	3	3
Latin.....	17	11	5	3
New Testament.....	2	1	2	1
Oriental Languages.....	3	2	1	1
Philosophy.....	12	22	4	4
Romance.....	19	21	2	4
Physical Sciences.....	150	151	29	33
Astronomy.....	3	2	1	1
Chemistry.....	75	73	10	12
Geology and				
Paleontology.....	9	16	4	4
Mathematics.....	25	26	7	9
Physics.....	38	34	7	7
Social Sciences.....	185	233	25	30
Economics.....	67	74	4	6
Education.....	19	24	4	5
Geography.....	6	13	2	3
History.....	42	51	7	7
Political Science.....	24	33	4	3
Sociology and				
Anthropology.....	27	38	4	6
Applications				
Withdrawn.....	10	17		
Total.....	544	604	104	110

TABLE V

NUMBER OF APPLICATIONS FOR AND APPOINTMENTS TO SERVICE
SCHOLARSHIPS IN THE GRADUATE SCHOOLS OF ARTS,
LITERATURE, AND SCIENCE ON APRIL 1, 1929 AND 1930

Division and Department	Applications for		Appointments* for	
	1929- 1930	1930- 1931	1929- 1930	1930- 1931
Biological Sciences.....	30	33	32	31
Anatomy.....	1	3	1	1
Botany.....	4	4	7	8
Home Economics.....	1	3	3	3
Hygiene and Bacteriology...	4	0	4	3
Pathology.....	0	0	0	0
Physiology.....	1	4	2	1
Physiological Chemistry....	11	8	5	5
Psychology.....	6	6	4	4
Zoology.....	2	5	6	6
Humanities.....	29	40	25	28
Art.....	2	1	2	2
Comparative Literature.....	0	2	0	1
Comparative Philology.....	0	0	1	1
Comparative Religion.....	1	2	1	1
English.....	7	8	5	6
Germanics.....	5	7	5	4
Greek.....	1	1	2	2
Latin.....	6	8	3	4
New Testament.....	0	0	0	0
Oriental Languages.....	0	0	0	1
Philosophy.....	2	3	3	3
Romance.....	5	8	3	3
Physical Sciences.....	23	37	29	28
Astronomy.....	0	0	1	1
Chemistry.....	6	17	6	6
Geology and Paleontology...	1	4	2	4
Mathematics.....	11	12	10	9
Physics.....	5	4	10	8
Social Sciences.....	36	48	22	26
Economics.....	5	2	3	3
Education.....	8	4	3	3
Geography.....	2	5	2	6
History.....	11	12	4	4
Political Science.....	4	10	4	4
Sociology and Anthropology.	6	15	6	6
Applications withdrawn...	..	6	..	..
Total.....	118	152	108	113
Appointments from appli- cants for fellowships..	..	..	68	72
Net appointments from scholarship applications	..	..	40	41

*Appointments to service scholarships are made from those applying for a "fellowship or scholarship" (see p. 18), as well as from those applying only for scholarships.

It should not be assumed that the scholars and fellows appointed by the Committee and announced on April first are, in all cases, the ones who actually serve during the following year. A comparatively large number of resignations are received. The records of the secretary of the Committee show that in 1929-1930 nine University Fellows and 56 service scholars resigned without serving. The following year 19 University Fellows and 59 service scholars did not serve after they were selected. The proportion of resignations for the latter year was 20 per cent among University Fellows and 52 per cent among service scholars.

Selection of Noyes Scholars, both graduate and undergraduate, is made by the secretary of the Committee on Fellowships and Scholarships, acting with the advice of some member of the Committee. In 1930-1931 the Dean of the Ogden Graduate School of Science was the advising officer. Selection is largely a matter of routine, action being governed by such rules as are necessary to carry out the conditions set by the donor of the Noyes Fund. The amounts to be awarded are determined on the basis of the number of applications on file and the amount of income anticipated from the Fund. In the early years of the Fund awards usually amounted to full tuition for three quarters of the academic year. The large number of applications and the reduced income available for 1930-1931 necessitated the formulation of limitations on the awards, as follows: applications based on military service of ten months or longer were awarded up to one-half of the amount of full tuition for three quarters, not to exceed \$150; for service periods of three but less than ten months, awards of one-fourth of tuition fees, not to exceed \$75, were granted; and for military service of less than three months no awards were made.¹

Scholarship Committee in the Colleges.²--The Dean of the Colleges of Arts, Literature, and Science has organized the Scholarship Committee in the Colleges to assist in the awarding of scholarships which are available for students in the Colleges. The personnel of this Committee consists of the Dean of the Colleges, a representative of the President's Office, the University

¹See Appendix A for a statement of the regulations for 1935-1936.

²A description of the work of this Committee as organized in 1935-1936 is given in Appendix A.

Examiner, and two deans in the Colleges. The secretary who serves the Committee on Fellowships and Scholarships is also secretary of the Committee in the Colleges.

The Committee in the Colleges, or the Dean acting for the Committee, is responsible for the selection of students holding honor entrance, two-year honor, second-, third-, and fourth-year honor scholarships, and endowed and annual scholarships which are not provided for by other methods of selection.

Naming holders of the honor entrance and two-year honor scholarships requires the sifting of a large amount of information. Application for and award of these scholarships are made before the applicants begin residence in the University, so that those responsible for the selection must usually base their judgments on factors other than personal knowledge of the applicants. The information on which the selection is based is obtained from the Application for Admission to the Junior College, application for the scholarship, and in many cases letters from alumni or friends of the University who know the applicant.

Since considerable time and care must necessarily go into examining this information, two sub-committees have been appointed to do this work. In each case the personnel of the sub-committee includes members who do not hold membership on the Committee for the Colleges. The sub-committees evaluate the applicants for honor entrance and two-year honor scholarships and make nominations on the basis of ranking in what they consider the order of merit for each of the two types of awards. The entire Committee in the Colleges then acts on each nomination separately. Over-assignment of about 10 per cent is made on each type of award, in order to care for resignations. A list of alternates is also selected for each of the scholarships, and vacancies beyond the number of over-assignments are filled from these lists.

It was pointed out in the first section of this chapter that honor scholarships beyond the entering year are awarded chiefly on the basis of the scholastic record in the University, with financial need playing a secondary part. The Bulletin on Awards and Aids for 1930-1931 states that no applications are required for these honor scholarships. In practice, however, an application form has been developed, the chief purpose being to determine something of the financial need of the students who are eligible for honor scholarships and to discourage those students applying who are not financially handicapped.

In the Spring Quarter of each year there is prepared in the Office of the Recorder a list of the highest ranking students in each of the first three college classes, freshman through junior. The list includes for each class a few more names than the number of scholarships available for each group for the following year. The Dean of the Colleges sends letters to students ranking highest in grade-point average in each class up to the number of honor scholarships available, informing the students that they are eligible for honor scholarships because of the high quality of their work. They are also told that the number of scholarships is limited, and the suggestion is made that if a student does not need the financial aid, he may accept the honor, but decline the tuition award, so that the stipend can be used to help some capable but more needy student. In the majority of the cases the awards of second-, third-, and fourth-year honor scholarships go to students who rank highest in their respective classes, although a number of students have declined the scholarships in favor of others who had greater financial need.

Financial need, in addition to scholastic standing, is given consideration in making awards of endowed and annual scholarships. Students who are especially successful in extra-curricular activities are occasionally rewarded by being given endowed scholarships. Application for these special scholarships are filed with the secretary of the Scholarship Committee not later than May first for consideration for the following year. Announcement of awards is usually made about August first. Donors of endowed funds who have reserved the right of selecting the students to be aided report their selection to the Dean of the College or to the secretary of the Committee and announcement is made with the other awards. When donors fail to exercise the right of selection, the student to receive the award is selected by the Dean. Information on file in the office of the Dean is sufficient to select students who satisfy the specific limitations attached to the use of certain special funds.

University Examiner.¹--Candidates for examination entrance scholarships are taken care of by the University Examiner. The

¹The title of the University Examiner has been changed to the Director of Admissions. The Board of Examiners now administers the tests on which the award of competitive entrance scholarships is based, under the supervision of the Scholarship Committee in the College. For further details see Appendix A.

conditions governing the awards have already been described.

At the scholarship examination on the University campus on the morning of May 23, 1930, 673 students from 76 high schools in 8 states participated. Student proctors assisted the Examiner in supervising the conduct of the tests and in acting as hosts to the visiting students. Papers were scored during the afternoon and the awards announced at a meeting of the applicants held during the same evening. Examinations were also given to 76 competitors in Kansas City, Missouri. Off-campus examinations are given at an earlier date, so that all awards are announced at the same time. Table VI shows the total number of students who wrote papers in the examinations and the number of awards which were made.

TABLE VI

NUMBER OF COMPETITORS FOR AND NUMBER OF AWARDS OF EXAMINATION
ENTRANCE SCHOLARSHIPS, MAY, 1930

Subject	Number of Competitors	Number of Awards of Each Size			
		\$300	\$150	\$100	Total
American History..	143	3	3	3	9
English Language and Literature..	136	4	3	3	10
Chemistry.....	136	4	3	3	10
Mathematics.....	85	2	3	2	7
Physics.....	53	1	2	1	4
French.....	51	1	3	2	6
Latin.....	45	2	2	1	5
Spanish.....	42	1	2	2	5
German.....	19	1	..	..	1
Botany.....	17	1	..	..	1
Zoology.....	16	1	..	..	1
Total.....	749	21	19	17	57

At least one full scholarship, covering tuition for three quarters and having a value of \$300, was awarded in each of the subjects in which examinations were given. Of the 57 awards, 37

per cent were scholarships carrying full tuition, 33 per cent paid for one-half the full tuition charges, and 30 per cent provided one-third of full tuition charges for three quarters.

Sixteen of the 57 awards were declined. The number of full and partial awards declined are shown in Table VII, with the resignations separated into those of graduates of high schools located in Chicago and outside of Chicago. Full scholarships were awarded to 21 students, 14 from Chicago high schools and 7 from other schools; resignations were made by one of the former and three of the latter.

TABLE VII

EXAMINATION ENTRANCE SCHOLARSHIPS AWARDED TO AND DECLINED BY
GRADUATES OF HIGH SCHOOLS LOCATED IN CHICAGO AND OUTSIDE
CHICAGO, 1930-1931

	Graduates of High Schools Located		
	In Chicago	Outside Chicago	Total
Number of Awards			
Full tuition.....	14	7	21
Partial tuition.....	22	14	36
Total.....	36	21	57
Number of Awards Declined			
Full tuition.....	1	3	4
Partial tuition.....	2	10	12
Total.....	3	13	16
Percentage of Awards Declined			
Full tuition.....	7	43	19
Partial tuition.....	9	71	33
Total.....	8	62	28

Of the 36 partial awards (less than full tuition for three quarters), 22 were made to students from high schools in Chicago and 14 to students from other schools. Only 2 of the 22 Chicago students (9 per cent) declined partial awards, while 10 of 14 students (71 per cent) from high schools outside Chicago declined partial awards. It is apparent that Examination Entrance

Scholarships were declined in much larger proportions by students living outside of Chicago than by those living within the city, and that the proportion of partial awards declined by students residing outside Chicago is particularly large.

Donors, Special Committees, and the President of the University.--It has been pointed out previously that the privilege of selecting the recipients of certain special awards has been reserved by the donors of funds for certain special awards. In such cases the donor certifies the name of the student selected to the secretary of the Committee on Fellowships and Scholarships, who makes announcement of the award in the same method as other awards are announced. Awards of this type are the \$1000 fellowship of the American-German Student Exchange and the Löwry Scholarships. Graduates of the John Marshall High School are given preference in awarding the Louise Roth scholarship, and the principal of the high school certifies the name of the recipient to the Committee on Fellowships and Scholarships.

Special committees, in some cases appointed by the President of the University, designate the holders of certain special awards. The Seymour Coman Fellowships illustrate this type of selection. The holders of special awards in designated departments are frequently selected by representatives of the departments concerned.

In a few cases the donors have specified that selection shall be made by the President of the University.

Officials in the Professional Schools.--In most cases the funds for scholarships and fellowships which are limited to students in the professional schools are administered by representatives of the individual schools, usually by the Dean or a special committee. Provision has been made whereby the Committee on Fellowships and Scholarships, at the request of the professional school, will administer the funds especially designated for the professional schools.

Selection of the holders of awards open to all students alike, regardless of classification as undergraduate, graduate, or professional school students, is, of course, handled by one of the methods already described. Appointment under the Noyes and Frederick A. Smith Funds, which are not limited to students of any designated classifications, are examples.

Summary

The forms of financial aid to students described in this chapter include scholarships, fellowships, assistantships, and tuition remissions. Certain types of awards are restricted to students of specific classifications, such as entering freshmen; others are limited by terms imposed by donors; and still others are open to students without regard to classification. Fellowships and assistantships are available for graduate students, while scholarships and tuition remissions are not limited to this group.

The Committee on Fellowships and Scholarships is the agency through which most of the routine connected with the selection of the majority of scholars and fellows clears. The Committee in the Colleges selects students to be awarded certain types of scholarships for the first three undergraduate years. The deans of the professional schools, and in a few cases, the donors of special funds, also select recipients of some types of aid. Tuition remissions are granted under regulations adopted by the Board of Trustees.

Only 19 per cent of the applicants for fellowships in the Graduate Schools of Arts, Literature, and Science received these awards for 1929-1930 and 1930-1931. However, applicants may request fellowships or scholarships, so that more than one-half of the appointments to service scholarships in each of the two years were made from applicants for fellowships. The number of appointees who resigned these awards without serving is relatively large. In 1930-1931, 20 per cent of the University Fellows and 52 per cent of the service scholars did not serve.

Examination Entrance Scholarships were awarded to 57, or 8 per cent, of the 673 students who competed for them in 1930. Thirty-six of these awards were for amounts less than full tuition. These partial awards were accepted by 91 per cent of the graduates of Chicago high schools, but by only 29 per cent of the out-of-town high-school graduates. Ninety-three per cent of the Chicago high-school students awarded full scholarships accepted them, while only 57 per cent of the out-of-town students accepted these awards.

CHAPTER III

NUMBER OF STUDENTS AIDED AND EXPENDITURES FOR AID

The most accurate sources of information regarding the amount and distribution of the expenditures for financial aid to students are the records in the office of the Comptroller of the University. The books of account are not concerned with the number of students, so that determination from this source of the amount of financial aid given to each student involves going back to all of the original records--thousands of vouchers--and a vast amount of clerical and accounting work.

Records maintained in the offices concerned with the selection of scholars, fellows, and assistants indicate the amount of aid granted to each person. This information is compiled for the Schools and Colleges of Arts, Literature, and Science by the Committee on Fellowships and Scholarships, and by the Deans of the Professional Schools. It was decided that the use of these administrative records would be sufficiently accurate to serve all of the purposes of this study. Information regarding tuition remissions granted by the Secretary of the Board of Trustees was copied directly from the vouchers in the office of the Comptroller. The lists of students receiving aid were checked to ascertain if one student received assistance from more than one source during the same year.

General University regulations regarding awards state that (a) unless otherwise specified, assistance in each year does not exceed the amount of the tuition fees for three quarters; (b) in general, the student is not allowed to receive assistance simultaneously from two or more sources within the University; and (c) unclassified students are not eligible for scholarships or loans.¹

¹Awards and Aids, p. 3. Announcements of the University of Chicago, Vol. XXX, No. 21. Chicago: University of Chicago Press, 1935.

This chapter analyzes the number of students aided, according to their University status and classification, and segregates the purposes of aid on the same basis. Expenditures for aid and sources of funds are also discussed from these points of view.

Number of Students Aided

University status.--The number of persons given student aid by means of scholarships, fellowships, assistantships, and tuition remissions was 2,651 in 1930-1931. The number of cases of aid was somewhat larger, as a small number of persons received aid of more than one type. The University status of the recipients of aid was as follows: faculty or administrative officer, 135; assistant, 191; fellow, 168; scholar, 1,107; and students having no other status, 1,095.

Classification.--The distribution of the cases of aid, for persons of each University status, among the various classifications of the University is given in Table VIII. The usual classifications of undergraduate students in Arts, Literature, and Science have been displaced in favor of the two categories "entering freshman" and "undergraduate other than entering freshman." The former group includes all students who matriculated in the Junior College, exclusive of transfer students with advanced standing of one year or more (nine majors or more).

Members of the faculty and administrative officers of the University who received tuition remissions were practically all registered in Arts, Literature, and Science, and at the graduate level. Assistantships or fellowships were provided in all the graduate and professional schools with the exception of Rush Medical College, while aid by scholarships was furnished to students in all classifications. The number of cases of aid to those of student status is practically as large as the number receiving scholarship awards.

Students in Arts, Literature, and Science comprised more than two-thirds (70.4 per cent) of all of the cases of aid during 1930-1931, the number of students aided decreasing sharply from the graduate to the freshman levels. The proportions of the total cases of aid in the professional schools vary widely, with students in Rush Medical College receiving the smallest number of grants.

Large differences in the numbers of students enrolled in the various classifications are responsible for some of the wide

TABLE VIII

NUMBER OF STUDENTS AIDED IN EACH CLASSIFICATION, ACCORDING TO
THEIR UNIVERSITY STATUS, 1930-1931

Classification of Students	Number of Persons of Each University Status						Percentage of Total
	Faculty Member or Administrative Officer	Assis- tant	Fellow	Scholar	Student	Total*	
Arts, Literature, and Science...	(129)	(121)	(122)	(945)	(564)	(1,866)	(70.4)
Entering freshman	..	..	..	137	35	167	6.3
Undergraduate, other than freshman	8	..	..	349	170	517	19.5
Graduate	121	121	122	459	359	1,182	44.6
School of Business	2	22	12	43	19	98	3.7
School of Social Service							
Administration	2	46	14	33	71	166	6.3
Divinity School	1	..	12	23	403	409	15.4
Law School	..	2	5	58	6	71	2.7
Rush Medical College	..	..	..	4	..	4	0.1
Graduate Library School	..	..	3	1	6	10	0.4
Unclassified	1	..	..	..	26	27	1.0
Total	135	191	168	1,107	1,095	2,651	100.0

*Duplicates, consisting of persons who received aid under more than one status, have been excluded from the totals.

variations appearing in the distribution of the cases of student aid among the schools and colleges of the University. When the number of cases of aid in each classification is expressed as a percentage of the number of students enrolled in the corresponding classification, the data are more meaningful. Computations on this basis are presented in graphic form in Figure 2.

One student out of every four in the University, exclusive of University College, received financial aid in 1930-1931. In Arts, Literature, and Science the proportions receiving aid are largest at the graduate level and smallest for undergraduates other than entering freshmen. In the other classifications the proportions vary from practically all students in the Divinity School to one out of each hundred enrolled in Rush Medical College. These extremes represent wide differences in student-aid policies. The Divinity School grants remission of \$80 on the full fee of \$100 to all students who make application, while Rush Medical College makes no grants from its own budget for student aid. The four cases of aid shown in Table VIII to students in Rush Medical College are endowed scholarships, three of the number being from the Noyes Foundation.

Purpose of Awards.--All of the available published materials of the University in connection with awards to students, as well as officers connected with the administration of grants, were consulted in determining the purposes of the various forms of financial aid. The material secured from the Deans of the Professional Schools included a statement regarding the purpose of the grants. Scholarships carrying definite service requirements, such as service scholarships in the Graduate Schools of Arts, Literature, and Science, and in the Law School, are classified as having the purpose of financing departmental service, although these awards involve other objectives also. In the case of tuition remissions the regulation or authority under which the remission is granted is written on the voucher in the office of the Secretary of the Board of Trustees. The persons regularly eligible for remissions have already been pointed out in Table III. Income from two relatively small endowed funds affords additional assistance to "worthy and needy students" (Gray and Jackson funds).

The numbers of students in each University classification who were aided for each purpose are presented in Table IX. The

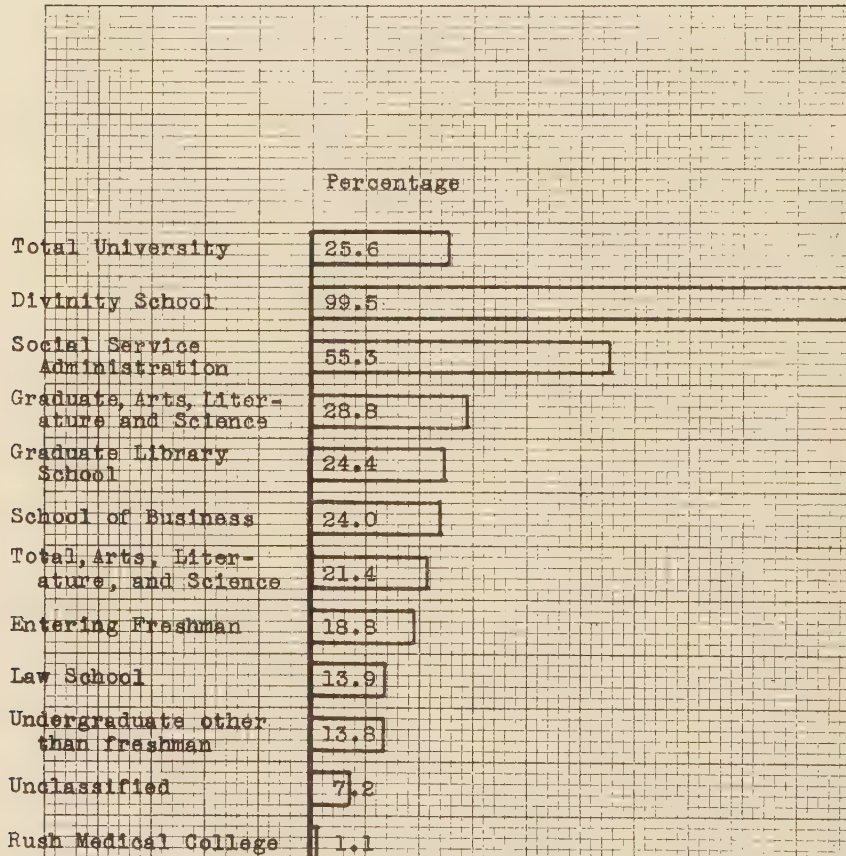


Fig. 2.--Percentage of total enrolment in each classification receiving financial aid in 1930-1931.

largest number of students received aid as a reward for military service, either in person or by a relative, in the forces of the United States in the World War. Income from the endowment of the Noyes Fund provides the awards for this purpose. The purpose ranking second in point of numbers was financial aid given because of the employee relation to the University. This aid consisted of tuition remissions to members of the faculty, administrative officers, other employees, and to certain close relatives of each group. Aid for the two purposes just mentioned carries no qualitative scholastic requirements of any sort. Together they include slightly more than one-third of the total number of students aided in 1930-1931. Aid given to prospective religious workers is confined to the Divinity School, and is provided to all students in that School who make application.

Three of the purposes for which aid is given have their emphasis placed definitely on excellent academic performance: to reward high scholarship, to attract excellent students, and to promote research by students. These grants reward one-fourth of the total number of students aided. Students for departmental service are frequently selected from among those who are also excellent students or research workers, so that in 1930-1931 the proportion of students aided for all purposes related to academic excellence probably ranges between thirty-five and forty per cent of the entire number aided.

Table X shows the percentage of the total cases of aid in each of the schools and colleges that were for purposes related to academic excellence, for departmental service, and for all other purposes. The percentage of cases of aid in the Graduate Library School is the highest shown for purposes related to academic excellence and the lowest for all other purposes. The cases of aid to students in the Divinity School show the opposite tendency. More than two-thirds of the cases of aid to students in the Graduate Schools of Arts, Literature, and Science were for purposes not related to academic excellence or to financing departmental service. Tuition remissions to members of the faculties of the University and the co-operating secondary schools help to swell this total, as most of these persons were registered in the Graduate Schools. The percentages for Rush Medical College are based on only four cases, so that the data are statistically unreliable.

TABLE X

PERCENTAGES OF TOTAL CASES OF AID TO STUDENTS IN
EACH CLASSIFICATION WHICH WERE FOR EACH OF THE
INDICATED PURPOSES

Classification of Students	Purposes Related to Academic Excellence*	Finance Departmental Service	All Other Purposes**
Graduate Library School.....	90.0	..	10.0
School of Social Service Administration.....	41.6	44.6	13.9
School of Business.....	36.7	26.5	36.7
Arts, Literature, and Science (28.2)	(28.2)	(11.9)	(36.7)
Entering freshman.....	79.7	..	20.3
Undergraduate, other than entering freshman.....	48.3	..	51.7
Graduate.....	11.8	18.9	69.3
Rush Medical College.....	25.0	..	75.0
Law School.....	16.9	46.5	36.6
Divinity School.....	2.7	5.0	92.3
Unclassified.....	..	..	100.0
Total.....	24.8	14.0	61.1

*Includes the following purposes: reward high scholarship, attract excellent students, and promote research by students.

**Includes the purposes: aid faculty, administrative officers, employees, and their relatives; aid prospective religious workers; reward veterans of the World War and their descendants; remit tuition to faculty of co-operating schools; assist capable but needy students; and extend courtesy to holders of the Ph.D. degree.

Total and per Capita Expenditures

The previous section of this chapter has shown wide variation in the numbers of students aided at different levels and in different schools and colleges of the University. Because of wide variations in the enrolments of the different units the expenditures for student aid will be discussed in terms of the total amount, the amount per student aided, and the amount per student enrolled.

University status.--Table XI shows the total amount of financial aid given to persons having the title of "scholar" as

exceeding that given to persons of any other University status; it amounts to 32 per cent of the total. Fellows, assistants, and other students received successively smaller amounts, while members of the faculty and administrative officers received only three per cent of the total.

TABLE XI
AMOUNTS OF FINANCIAL AID RECEIVED BY STUDENTS
OF EACH UNIVERSITY STATUS

University Status of Recipient	Total Amount of Aid Given	Percentage of Total	Average Amount per Student Aided
Scholar.....	\$166,281	32	\$150
Fellow.....	124,594	24	742
Assistant.....	110,572	21	579
Student.....	97,312	20	89
Faculty or administrative officer.....	17,124	3	127
Total.....	\$515,883	100	\$195

On the basis of the average amount per student aided, persons having the status of fellow rank significantly above any of the other groups. The high average per student for fellows and assistants, in comparison with the averages for those of any other status, reflects, in general, one policy of the University: assisting fellows and assistants with stipends which are large enough to cover a part of other expenses above tuition fees, and giving aid to students of other ranks in amounts equal to or smaller than tuition charges. The average for all students aided is \$195, which is five dollars less than the tuition fee for two quarters in a majority of the schools and colleges of the University.

Classification.--Table XII shows that students in Arts, Literature, and Science received \$364,413 in aid, or 70.6 per cent of the total for the year in all University classifications. One-half of the total expenditure was to graduate students in Arts,

Literature, and Science. The large proportion of aid to graduate students is explained by the large number of students aided, and the fact that fellows and assistants, who are graduate students, receive much larger per capita amounts than students of other status do.

TABLE XII
DISTRIBUTION OF STUDENT AID AMONG STUDENTS
OF VARIOUS CLASSIFICATIONS

Classification of Students	Total Amount of Aid Given	Percent- age of Total Aid Given	Average Amount per Student	
			Aided	Enrolled*
Graduate Library School.....	\$ 10,140	2.0	\$1,014	\$247
School of Business.....	36,670	7.1	374	90
Law School.....	15,901	3.1	224	31
Arts, Literature, and Science (364,413)	(70.6)	(195)	(41)	
Entering freshman.....	36,358	7.0	218	41
Undergraduate, other than entering freshman.....	68,629	13.3	133	18
Graduate.....	259,426	50.3	219	63
Divinity School.....	63,192	12.2	155	154
School of Social Service Administration.....	24,177	4.7	146	81
Rush Medical College.....	415	0.1	104	1
Unclassified.....	975	0.2	36	3
Total.....	\$515,883	100.0	\$195	\$50

*Students enrolled only in University College, the down-town teaching center, are excluded.

The range in the average amount per student aided is from \$1,014 in the Graduate Library School to \$36 for students of unclassified status. The average in Rush Medical College is \$104, which is approximately one-tenth as large as the highest shown in the table.

Figure 3 shows in graphic form the expenditures for student aid in each classification in terms of the average per student aided and the average per student enrolled. Students in the Graduate Library School lead all classifications in the average

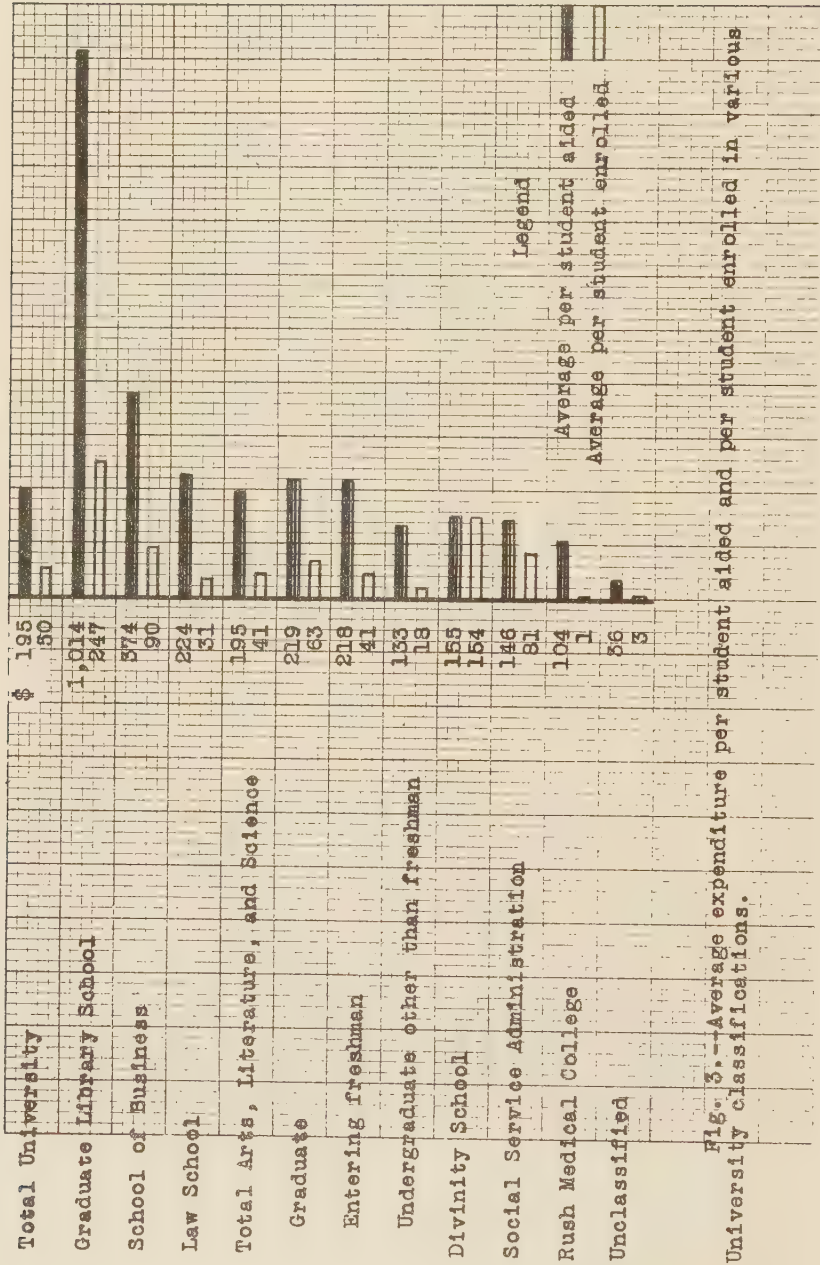


Fig. 3.--Average expenditure per student aided and per student enrolled in various University classifications.

amount of aid per student. The averages for all students in Arts, Literature, and Science are approximately the same as those for the entire University. It should be observed that the average amounts per student received by entering freshmen are significantly higher than the corresponding figures for undergraduates other than freshmen.

Purpose of awards.--Table XIII shows the total amounts of financial aid to students in each University classification, while Table XIV presents for identical categories the amounts per student aided. Expenditures for two purposes, departmental service and research by students, amount to more than one-half (54.25 per cent) of the total for all purposes. Since these two purposes account for only one-fifth (20.9 per cent) of the total number of students assisted, the amounts of aid per student are relatively large, being \$395 for departmental service and \$748 for promotion of research. Assistance to prospective religious workers by tuition remissions in the Divinity School ranks third in the total expenditure and fifth (\$127) in the average per student aided.

Expenditures for the purpose of rewarding high scholarship and attracting excellent students were approximately \$95,000, or 18.5 per cent of the total. The averages per student aided for these two purposes are approximately the same as the figure for all purposes for the entire University. It will be recalled from the discussion in Chapter II that, as defined in this study, aid as a reward for high scholarship does not include forms of aid which require service in return for the stipend, or fellowship grants for the promotion of research, although marks made in courses may be one of the factors considered in selecting students to receive aid.

Expenditures from the Noyes Fund, for the purpose of rewarding persons who served in the military forces of the United States during the World War, and descendants of such persons, amounted to approximately \$35,000, or 6.8 per cent of the total for the year. Students in all classifications, except unclassified, received Noyes Scholarships, although the data available make it impossible to segregate the freshmen from other undergraduates in Arts, Literature, and Science. Large variations in the total amount of aid to Noyes Scholars in the various schools are explained by the fact that widely differing number of eligible students in the various classifications made applications. The

TABLE

AMOUNT OF AID GIVEN TO STUDENTS OF VARIOUS

Purpose of Aid	Classification				
	Arts, Literature, and Science				School of Business
	Total	Entering Freshman	Under- graduate, Other than Entering Freshman	Graduate	
Finance depart- mental service.....	\$102,292	..	..	\$102,292	\$21,233
Promote research by students....	93,121	..	..	93,121	7,800
Aid prospective religious workers.....	..	..	..	..	..
Reward high scholarship....	43,092	\$ 842	\$37,325	4,925	3,650
Attract excellent students.....	42,500	32,600	9,900	..	1,600
Reward veterans of the World War and their descendants....	31,479	..	6,183	25,296	1,450
Aid faculty, ad- ministrative officers, and employees.....	35,125	1,483	9,647	23,995	491
Assist capable but needy students.....	8,771	1,408	4,774	2,589	150
Remit tuition to faculty of co- operating schools.....	8,033	25	800	7,208	296
Extend courtesies to holders of Ph.D. degree...	..	..	..	..	..
Total.....	\$364,413	\$36,358	\$68,629	\$259,426	\$36,670

IFICATIONS FOR EACH PURPOSE

Students						
of 1 ce is- on	Divinity School	Law School	Rush Medical College	Graduate Library School	Unclass- sified	Total
8	\$ 3,924	\$ 7,475	..	..	..	\$149,412
3	8,167	3,933	..	\$10,100	..	130,194
.	50,745	..	..	..	..	50,745
0	..	2,500	\$250	..	..	49,792
2	..	..	..	..	..	45,502
7	143	1,408	165	40	..	34,982
1	63	135	..	..	\$675	36,960
3	..	450	..	..	67	9,571
5	..	..	..	..	233	8,575
.	150	..	..	..	..	150
7	\$63,192	\$15,901	\$415	\$10,140	\$975	\$515,883

average amounts per student indicate relatively minor discrepancies among the various Schools and Colleges, these being due primarily to differences in the number of quarters the students were in residence and to the tuition fees paid.

Aid for purposes in addition to those discussed in the foregoing paragraphs, i.e., for the last four purposes listed in Tables XIII and XIV, is not administered by officers of the various Schools and Colleges, but by the Secretary of the Board of Trustees, under the regulations governing remission of tuition. Differences in the average amount of aid per student in the various classifications are due primarily to inequalities in the amount of course work carried and in length of residence. Members of the faculties, administrative officers, and employees who register as students usually carry much less than a full-time schedule of classes, while a majority of the members of the faculties of co-operating schools are in residence only during the Summer Quarter.

Figure 4 shows comparisons of the average expenditure per student aided in the various classifications for the four purposes which rank highest in total expenditures in Table XIII. Relatively wide variations in the average expenditure per student for the same purpose probably indicate differences in policies among the various Schools and Colleges in the University, as well as elements in the problem of student aid which are not identical for all divisions of the University.

Sources of Funds Expended

The three chief sources of funds for the current operating budget of the University are student fees, income from endowment, and gifts.¹ In making the budget allocations for expenditures the specific source of funds is disregarded except in cases where income is designated for a specific purpose, as for an endowed professorship. Money expended for aid to students can therefore be traced back to its origin in the income budget only in the case of funds earmarked for this special purpose. Financial aid to students

¹The budget income of the University in 1930-1931 was derived from the following sources: student fees, 33.24 per cent; endowment funds, 42.66 per cent; gifts, 11.10 per cent; and all other sources, 13.00 per cent. (Report of the Comptroller, 1930-1931, p. 42. Chicago: University of Chicago Press, 1931.)

Legend

- A Law School
- B School of Social Service Administration
- C Graduate, Arts, Literature, and Science
- D Rush Medical College
- E School of Business
- F Arts, Literature, and Science, freshman
- G Total, Arts, Literature, and Science
- H Arts, Literature, and Science Undergraduate other than freshman
- I Graduate Library School
- J Divinity School

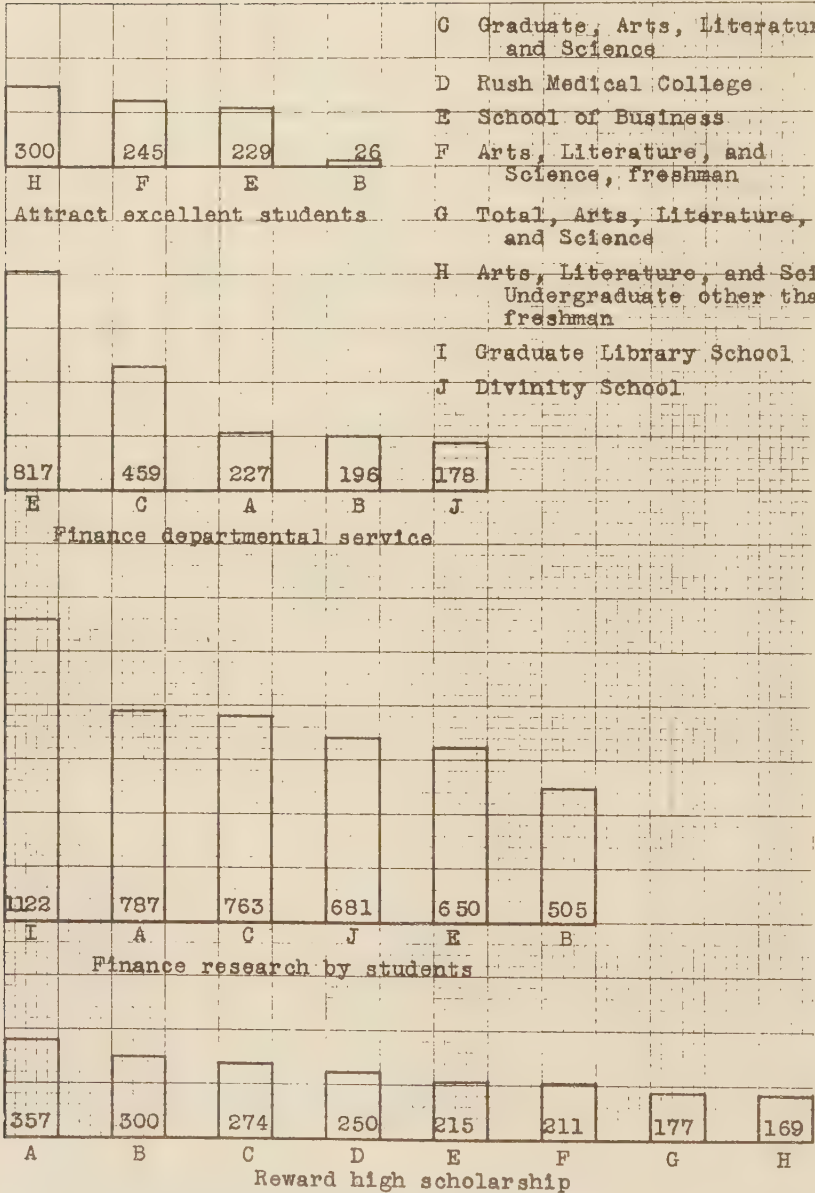


Fig. 4.--Average expenditure per student given aid for specific purposes in each University classification.

from sources of income not designated for that specific purpose may originate in student fees, general endowment income, undesignated gifts, or any other source of income open to the University. The sources of income to which expenditures for student aid may be traced are therefore three: undesignated budget income, designated endowment income, and specifically designated gifts.

Undesignated budget income includes all unrestricted funds, regardless of source, which can be appropriated to any desired function. The term "designated endowment income" is practically self-explanatory; it includes income from endowment which is specifically designated, usually in the deed of gift, for financial aid to students. Specially designated gifts refers to funds the capital of which, rather than the income, is designated for purposes of student aid.

Total Expenditures from each source.---Table XV shows that practically three-fourths of all the funds expended for student

TABLE XV
NUMBER OF STUDENTS AIDED AND AMOUNT OF AID FROM
EACH SOURCE

Source of Funds	Number of Students Aided	Total Amount of Aid Given	Percentage of	
			Total Students Aided	Total Funds for Student Aid
Undesignated budget income	1,922	\$380,995	73	74
Designated endowment income	649	84,156	24	16
Specially designated gifts	100	50,732	4	10
Total	2,651**	\$515,883	100**	100

*By undesignated budget income is meant income not specifically designated for student aid, although it may be designated for a particular department, school, or division.

** Duplicates have been excluded from the total. Duplicates consisted of students receiving aid from funds from more than one source.

aid in 1930-1931 was derived from undesignated budget income, one-sixth from designated endowment, and one-tenth from special gifts. It is of interest to note that the income derived from designated endowment income, representing one-sixth of the expenditures, aided 24 per cent of the students, while the income from special gifts, accounting for one-tenth of the total aid, provided for only four per cent of the cases. Income in the form of special gifts therefore seems to make for relatively higher amount of aid per student.

University status.--Table XVI shows that with regard to total expenditures to students of each status, expenditures from funds derived from undesignated budget income are largest for assistants; and that students, scholars, and fellows benefit in amount in the order given. The income from endowment designated for student-aid purposes is spent almost entirely for scholarships and fellowships, while special gifts for student aid are spent entirely for these two types of aid.

The figures for the average per student indicate that special gifts provide the largest average stipends for fellowships and that general undesignated budget income accounts for the smallest. Scholarship awards also maintain the highest average per student when the funds come from specially designated gifts; however, endowment funds provide the smallest stipends.

The graphic representation of the percentage of total expenditures for persons of each University status derived from each of the three indicated sources, as shown in Figure 5, indicates that fellowships and scholarships are the only types of aid for which substantial financial provision is made except from general undesignated budget funds.

University classification.--Table XVII shows the percentage of the total expenditures to students within each University classification derived from each of the three sources. All of the aid to students in Rush Medical College was derived from income on endowment designated for student aid, while in every other University classification the majority of the funds was derived from undesignated budget income. Special gifts for student aid furnished larger proportions of the total expenditures for aid to freshmen and other undergraduates in Arts, Literature, and Science than in any other University classification.

TABLE XVI
SOURCES OF FUNDS USED FOR AIDING STUDENTS OF EACH UNIVERSITY STATUS

University Status of Recipient	Funds from								
	Undesignated Budget Income		Designated Endowment Income		Especially Designated Gifts				
	Number of Students Aided	Amount of Grants	Average per Student Aided	Number of Students Aided	Amount of Grants	Average per Student Aided	Number of Students Aided	Amount of Grants	Average per Student Aided
Faculty or administrative officer	135	\$ 17,124	\$127	..	..	..	..	..	..
Assistant	191	110,572	579	..	..	..	..	..	..
Fellow	110	72,133	656	33	\$24,479	\$741	25	\$27,982	\$1,119
Scholar	441	87,266	198	595	56,265	95	75	22,750	303
Student	1,064	93,900	88	31	3,412	110	..	..	..

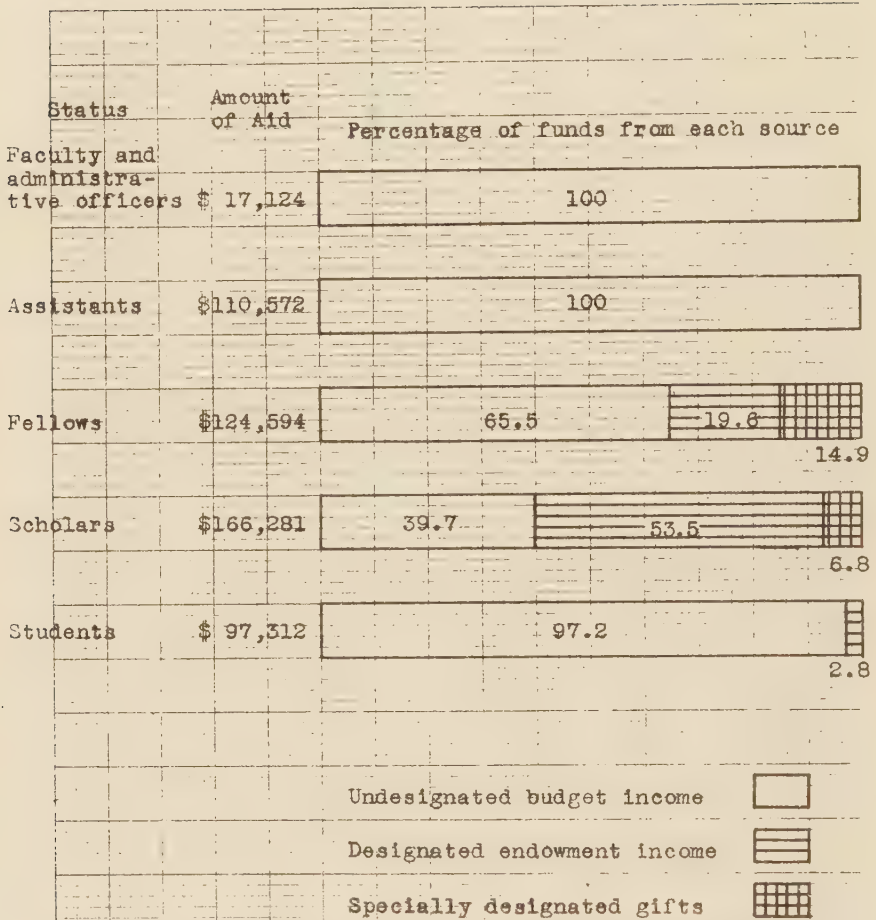


Fig. 5.--Percentage of funds derived from each source for aid to students in each University status.

TABLE XVII
PERCENTAGE OF TOTAL AID TO STUDENTS WITHIN VARIOUS
CLASSIFICATIONS THAT WAS DERIVED
FROM EACH SOURCE

Classification	Percentage of Total Aid from Each Source		
	Undesignated Budget Income	Designated Endowment Income	Especially Designated Gifts
Unclassified.....	100	..	..
Graduate Library School.....	99	1	..
School of Business.....	94	6	..
Divinity School.....	94	6	..
School of Social Service Administration.....	76	17	7
Graduate, Arts, Literature, and Science.....	72	18	10
Entering freshman, Arts, Literature, and Science...	71	3	26
Law School.....	68	24	8
Undergraduate, Arts, Literature, and Science.....	52	31	17
Rush Medical College.....	..	100	..
Total.....	74	16	10

Purpose of aid.--Table XVIII presents an analysis of the sources of the funds used for aiding students for each purpose. Undesignated budget funds are used to provide all or a majority of the aid for all purposes except as a reward for veterans of the World War. All of the aid for the latter purpose is provided from the income of specially designated endowment. All of the special gifts for student aid were used to attract excellent students, to promote research by students, or to reward high scholarship in the University.

TABLE XVIII

PERCENTAGE DISTRIBUTION OF AID FOR EACH PURPOSE
ACCORDING TO SOURCE OF FUNDS

Purpose of Aid	Undesignated Budget Income	Designated Endowment Income	Especially Designated Gifts
Aid prospective religious workers.....	100	..	..
Aid faculty, administrative officers, employees, and their relatives.....	100	..	..
Remit tuition to faculty of co-operating schools.....	100	..	..
Finance departmental service	97	3	..
Assist capable but needy students.....	64	36	..
Promote research by students	60	19	21
Attract excellent students..	59	..	41
Reward high scholarship.....	58	35	7
Reward veterans of the World War and their descendants.	..	100	..
All purposes.....	74	16	10

Restrictions on Expenditures

Restrictions based on classification.--A majority of the funds appropriated for student-aid purposes are specifically designated for use in certain types of awards in definitely stated classifications. For example, appropriations in the budget are provided for honor entrance scholarships to entering freshmen, for service scholarships in the Graduate Schools of Arts, Literature, and Science, or for University fellowships. Each of the professional schools likewise makes definite provision for the expenditures necessary for its program of financial aid to students.

The funds which are definitely limited by appropriation to students of specific classifications are supplemented by others which either have no restrictions, or have restrictions limited by factors other than the classification of students. Tuition remissions issued by the Secretary of the Board fall within the

second type, since the terms of the financial aid are fixed by Board regulation without reference to the classification in which the faculty member or employee is registered. Restrictions on awards from the Noyes Fund are likewise of this type, since they have to do with factors other than classification. Although a majority of the endowed awards have restrictions of some sort imposed by the donors of funds, many of the limiting conditions relate to matters other than the classification of the University in which the holder of the award might be registered.

Table XIX presents data regarding the aid to students of each classification from funds restricted to the respective classification, and from funds unrestricted as to the classification of students aided. The number of students aided from funds unrestricted as to classification is practically as large as the number aided from restricted funds, although the amount of aid is only one-fourth as large for the first category as for the second. Of the total number of students aided from unrestricted funds, 87 per cent were in Arts, Literature, and Science, above the freshman year. In fact, the number in this group given aid from unrestricted funds is almost twice as large as the number assisted by funds restricted to the two classifications mentioned.

The expenditure per student aided from unrestricted funds is smaller in every classification than the corresponding average from restricted funds. The average for the entire University is almost four times as large for students assisted from restricted funds as for those aided from unrestricted funds.

Other restrictions.--In addition to restrictions regarding the classification of students who are aided, the donors of a number of scholarships have specified within rather narrow limits the conditions to be met by students receiving the awards. The Noyes Scholarships, limited to veterans or descendants of veterans of the military forces of the United States in the World War, have been mentioned. The Joseph Triner Scholarship "is awarded to a Czechoslovak graduate of a high school of the city of Chicago, who has pursued with distinction at least one year of chemistry in that school. . . ."¹ Other awards are limited to students

¹Awards and Aids, p. 12. Bulletin of the University of Chicago, Vol. XXX, No. 21. Chicago: The University of Chicago Press, 1930.

TABLE XIX

AID GIVEN IN VARIOUS CLASSIFICATIONS FROM FUNDS RESTRICTED
TO STUDENTS IN EACH CLASSIFICATION AND FROM FUNDS
UNRESTRICTED AS TO CLASSIFICATION

Classification of Students	Aid from Funds Restricted as to Classification			Aid from Funds Unrestricted as to Classification		
	Number of Stu- dents Aided*	Amount of Aid	Average per Student Aided	Number of Stu- dents Aided*	Amount of Aid	Average per Student Aided
Arts, Literature, and Science:						
Entering						
freshman.....	136	\$ 33,350	\$ 245	36	\$ 3,008	\$ 84
Undergraduate, other than						
entering						
freshman.....	215	39,119	183	310	29,510	95
Graduate.....	358	198,713	555	824	60,713	74
School of						
Business.....	59	33,483	568	39	3,187	82
School of Social						
Service						
Administration..	142	22,963	162	24	1,214	51
Divinity School..	403	62,836	156	7	356	51
Law School.....	41	12,208	298	30	3,693	123
Rush Medical						
College.....	1	250	250	3	165	55
Graduate Library						
School.....	9	10,100	1,122	1	40	40
Unclassified.....	..	..	..	27	975	36
Total.....	1,364	\$413,022	\$ 303	1,301	\$102,861	\$ 79

*Duplications, consisting of students aided from both
restricted and unrestricted funds, are not excluded.

specializing in designated departments of the University, to graduates of specific secondary schools or colleges, or to members of particular racial or religious groups. In general, however, restrictions which have been mentioned are not such as would preclude the selection for aid of students who attain scholastic standards comparable with those required of holders of awards financed directly by the University.

Summary

Students in Arts, Literature, and Science comprised more than two-thirds of all of the cases of aid during 1930-1931, the number of students aided decreasing sharply from the graduate to the freshman levels. The proportions of the total cases of aid in the professional schools vary widely, with students in Rush Medical College receiving the smallest number of grants.

One student out of every four in the University, exclusive of University College, received student aid in 1930-1931, the proportions varying from practically all students in the Divinity School to one out of each hundred enrolled in Rush Medical College. Varying policies appear with respect to student-aid. The Divinity School grants remission of \$80 on the full tuition fee of \$100 to practically all students who make application, while Rush Medical College makes no grants from its own budget for student aid, but provides for financial assistance for research conducted by persons who have completed their professional training.

In 1930-1931, the proportion of students aided for all purposes related to academic excellence probably ranged between 35 and 40 per cent of the entire number. The percentage of cases of aid in the Graduate Library School is the highest shown for purposes related to academic excellence and the lowest for all other purposes. The cases of aid to students in the Divinity School show the opposite tendency. More than two-thirds of the cases of aid to students in the Graduate Schools of Arts, Literature, and Science were for purposes not related to academic excellence or to financing departmental service.

On the basis of the average amount per student aided, persons having the status of fellow rank significantly above any of the other groups. This reflects one policy of the University --assisting fellows and assistants with stipends which are large

enough to cover a part of other expenses above tuition fees, and giving aid to students of other ranks in amounts equal to or smaller than tuition charges. The average for all students aided in \$195, which is five dollars less than the tuition fee for two quarters in a majority of the schools and colleges of the University.

A majority of the funds appropriated for student-aid purposes are specifically designated for use in certain types of awards in definitely stated classifications. The number of students aided from funds unrestricted as to classification, however, is practically as large as the number aided from restricted funds, although the amount of aid is only one-fourth as large for the first category as for the second.

CHAPTER IV

SIZE AND ADEQUACY OF SCHOLARSHIP AND FELLOWSHIP GRANTS

Size of Grants

The data of the previous chapter give the average amount of aid per student for various classifications, but do not show the degree to which the size of awards tends to vary around the central tendency. It will be the purpose of this chapter to examine the scholarship and fellowship awards in the Graduate Schools of Arts, Literature, and Science in terms of the range in the size of the awards, and to attempt to determine the relative adequacy of the awards.

The figures in Table XX show that, excluding Noyes Scholarships, a majority of the awards to entering freshmen were for amounts falling in the interval from \$275 to \$324, or approximately \$300, while of the other undergraduate scholarships, only slightly more than one-fourth (28.0 per cent) were for amounts of this size. Of the entering freshmen, 31.4 per cent received grants of less than \$175, while 48.7 per cent of other undergraduates were granted amounts of less than \$175. The average per grant for freshmen is 31 per cent larger than the corresponding figure for other undergraduates. Approximately one-seventh (14.4 per cent) of the graduate students aided received awards of less than \$175, while 47.6 per cent received \$324 or more.

A distribution of the awards based on the purpose of the grant, as given in Table XXI, shows that the average per student aided is lowest for the purpose of rewarding high scholarship in the University and highest for promoting research by students. Some grants of less than \$75 are given as a reward for high scholarship, while the lowest amounts indicated in the table for the purpose of attracting students range from \$75 to \$124. A majority of the scholarships for the purpose of financing departmental service provide stipends of approximately \$300 or more,

TABLE XX

DISTRIBUTION OF STUDENTS RECEIVING SCHOLARSHIPS AND FELLOWSHIPS
IN THE COLLEGES AND GRADUATE SCHOOLS OF ARTS, LITERATURE, AND
SCIENCE ACCORDING TO THE AMOUNT OF GRANTS*

Amount of Grant	Awards to							
	Entering Freshmen		Under- graduates, Other than Freshmen		Graduate Students		Total	
	Number	Per- cent- age	Number	Per- cent- age	Number	Per- cent- age	Number	Per- cent- age
\$2500 and over	..	..	..	..	2	0.8	2	0.3
2000 - \$2499	..	..	..	..	4	1.7	4	0.6
1500 - 1999	..	..	..	..	1	0.4	1	0.2
1000 - 1499	..	..	..	..	22	9.1	22	3.5
750 - 999	..	..	..	..	19	7.9	19	3.0
550 - 749	..	..	..	..	34	14.1	34	5.4
425 - 549	..	..	..	..	24	9.9	24	3.8
325 - 424	..	..	2	0.8	9	3.7	11	1.7
275 - 324	71	51.8	71	28.0	76	31.4	218	34.4
225 - 274	..	..	4	1.6	2	0.8	6	0.9
175 - 224	23	16.8	53	20.9	14	5.8	90	14.2
125 - 174	31	22.6	55	21.6	3	1.2	89	14.1
75 - 124	12	8.8	41	16.1	31	12.8	84	13.3
25 - .4	..	..	28	11.0	1	0.4	29	4.6
Total....	137	100.0	254	100.0	242	100.0	633	100.0
Average amount per grant**..	\$244		\$186		\$506		\$321	

*Tuition remissions, Noyes Scholarships, and assistant-
ships are not included.

**Computed from undistributed data.

TABLE XXI

DISTRIBUTION OF NUMBER OF SCHOLARSHIPS AND FELLOWSHIPS* GIVEN FOR EACH PURPOSE ACCORDING TO THE AMOUNT OF THE GRANT IN THE COLLEGES AND GRADUATE SCHOOLS OF ARTS, LITERATURE, AND SCIENCE

Amount of Grant	Attract Excellent Students	Reward High Scholarship	Finance Departmental Service	Promote Research by Students	Total
\$2500 and over	..	..	..	2	2
2000 - \$2499	..	..	..	4	4
1500 - 1999	..	..	..	1	1
1000 - 1499	..	..	..	22	22
750 - 999	..	..	..	19	19
550 - 749	..	..	..	34	34
425 - 549	..	1	2	21	24
325 - 424	..	2	4	5	11
275 - 324	102	50	58	8	218
225 - 274	..	5	..	1	6
175 - 224	23	59	5	3	90
125 - 174	30	56	1	2	89
75 - 124	11	42	31	..	84
25 - 74	..	28	1	..	29
Total.....	166	243	102	122	633
Average amount per grant**..	\$256	\$177	\$238	\$763	\$321

*Tuition remissions, Noyes Scholarships, and assistant-ships are not included.

**Computed from undistributed data.

although a third of the awards for this purpose were for \$124 or less. A small proportion of the awards for the promotion of research by students are for amounts of less than \$275, while 67 per cent are for amounts of \$425 or more.

The question of the size of the grants to be awarded to students has been raised at a number of times in the history of the University. President Harper recommended that awards to undergraduates be made for periods of two years. Provision was not made for two-year scholarships until 1929-1930, however, when funds were provided by interested alumni for a few two-year awards to outstanding entering students. Data already presented (Table VII) show that of 36 awards amounting to less than full tuition to students who had won examination entrance scholarships and were considering entering the University, 91 per cent were accepted by students residing in Chicago and vicinity, while only 29 per cent of the partial-tuition awards were accepted by students living outside of Chicago.

It seems reasonably certain that prospective students who are greatly handicapped by lack of funds, and must provide for living expenses in addition to tuition, cannot easily be attracted by awards of less than full tuition. It is open to serious question whether or not small awards for students who have serious financial difficulties are for the best interests of either the University or the student. Data compiled by Moon showed that approximately one-third of the students who entered with freshman scholarships in the years 1919-1925, inclusive, had permanently withdrawn from the University by the end of their third year, the suggested explanation being that "finances played a greater part in the withdrawal of scholarship-holders than in the withdrawal of students not holding scholarships, as applicants for freshman scholarships are not considered unless there is an apparent financial need."¹

The question of the size of stipends for fellowships for graduate students has received the attention of administrative authorities of the University at a number of times. Forty fellowships were offered by the University in its first year, 1892-1893,

¹George R. Moon, "Records of Students Who Entered the University with Freshman Scholarships," School Review, Vol. XXXVIII, No. 6 (June, 1930), p. 446.

the amount set aside for this purpose by the Board of Trustees being approximately the same as the sums then expended at Harvard University and Columbia University.¹ The stipends of the fellowships awarded in the first year were comparatively generous, 55 per cent of the total being in amounts \$400 larger than the tuition fee of \$120.² The practice of dividing the awards into smaller amounts, so that a larger number of students could be assisted, soon developed. A special committee in a report to the University Senate in 1913 decried this tendency, and urged that the awards be made larger by the appropriation of additional funds and by discontinuing or limiting the practice of making small awards.³

President Judson, in his annual report to the Board of Trustees, wrote:

The number of candidates for the doctorate who are especially gifted in the way of original work cannot be expected to be large, and such students should be especially encouraged in every reasonable way. It is to the advancement of this line of work that the fellowships of the University should be devoted, and it may be a fair question to ask whether it would not be a better policy for some of the departments to provide for a smaller number of fellowships yielding a higher stipend than at present, in order to secure the best results from a limited number of students of this character.⁴

At the request of President Hutchins, the director of the Survey of the University of Chicago made a special report to the President, in 1929, regarding the fellowships of the University. One of the recommendations was that fellowship awards of larger size be provided. The year following the report a number of University fellowships were awarded with stipends of \$1,000. The average size of University fellowships in Arts, Literature, and Science increased from \$439 in 1929-1930 to \$612 the following year. In 1930-1931, however, more than one-half of the fellowship awards to students in the Graduate Schools of Arts, Literature, and Science carried stipends of less than \$750. Tuition charges of \$300 must be paid from these stipends.

¹The President's Report, 1892-1902, p. cxvii. Chicago: The University of Chicago Press, 1903.

²Ibid., p. cxliv.

³The President's Report, 1913-1914, p. 6. Chicago: The University of Chicago Press, 1914.

⁴Ibid.

Cost of Residence

That the cost of residence at the University should be considered in attempting to determine the relative adequacy of scholarship and fellowship stipends seems to the writer to be so obvious as to require no argument. Estimates of the University and of students will be presented in this section. The scholars and fellows whose estimates are reported were registered in Arts, Literature, and Science during the Winter Quarter of 1930-1931. Reports from students are limited to those from holders of the types of scholarships and fellowships included in Tables XX and XXI. These two tables mentioned include awards given to students in each of the four quarters of the year, while the data to be presented in this section are limited to reports from scholars and fellows who received stipends during the Winter Quarter. The number of students included in the data of the first two tables in this chapter is therefore considerably larger than the numbers involved in the remaining tables of the chapter.

University estimates of expense.--The University attempts to aid students in making financial plans by giving estimates of the expenses which are common to all students. Table XXII shows expenses ranging from a low estimate of \$909 to a high estimate

TABLE XXII

ESTIMATE OF EXPENSES OF A STUDENT FOR 1930-1931 FOR
THREE QUARTERS AT THE UNIVERSITY^A

	Low	Average	Liberal
Tuition ^B	\$300	\$300	\$300
Textbooks and supplies.....	39	75	120
Incidentals.....	45	105	165
Rent and care of room.....	159	225	300
Board.....	252	300	360
Laundry and pressing.....	45	120	150
Total.....	\$840	1,125	\$1,395
Optional expenses:			
Recreation and amusement...	45	90	135
Dues for organization and fees for publication.....	24	120	150
Grand total.....	\$909	\$1,335	\$1,680

^ABased on the estimate of expenses in the catalog, Announcements, The Colleges and Graduate Schools of Arts, Literature, and Science, Vol. XXX, No. 25 (May 25, 1930), p. 9. Chicago: The University of Chicago Press, 1930.

^BTuition fee for the Colleges and Graduate School of Arts, Literature, and Science, the Graduate Library School, the Graduate School of Social Service Administration, the School of Commerce and Administration, and the Divinity School.

of \$1,680, with an average of \$1,335. Medical care and transportation are not included in the figures given.

The expenditures for which students have to provide show a range much greater than the difference between the low and liberal totals, however, as many students live in the homes of their parents and do not have to provide funds for certain important items such as board, and rent and care of room. The extremes, as represented by one student who lives at home and has to pay only for tuition and textbooks, and another student who makes expenditures for all of the items mentioned in the table, are a low estimate of \$359 and a liberal one of \$1,680.

Estimates of students.--The estimates by scholars and fellows of expenditures for a year at the University, on the basis of reports made during the Winter Quarter of 1930-1931, are presented in Table XXIII. It should be borne in mind that the figures are presented as student-budgets, rather than costs. The range in actual expenditure reported is from approximately \$300 to \$1,600, which approximates the figures based on University estimates discussed in the immediately preceding paragraph.

The average expenditure for undergraduate students is 29 per cent lower than for graduate students. This difference is due in part to the fact that the percentage of those reporting who live in the homes of their parents is larger for undergraduate than for graduate students.

Differences in the expenditures varying somewhat with the residential status are illustrated for undergraduates in Figure 6. The mean for men living in fraternity houses is 87 per cent larger than for men and women living in the homes of their parents. Almost one-half (46 per cent) of the scholars living at home report expenditures of less than \$500, while none of the 124 scholars having other types of living accommodations reports expenditures as low as \$500.

Table XXIV shows a distribution of the scholarship and fellowship awards in terms of the percentage which the award is of the expenditures connected with residence at the University. The data are based on reports from students who held awards during the Winter Quarter of 1930-1931. Expenditures for dependents, as for a wife and child, are included in the bases. Figure 7 shows the data for undergraduate students classified according to residence.

TABLE XXIII

ESTIMATED EXPENDITURES OF SCHOLARS AND FELLOWS FOR UNIVERSITY
EXPENSES* FOR ONE YEAR (THREE QUARTERS)

Estimated Expenditure	Number of Scholars and Fellows							
	Undergraduate Scholars			Graduate				Total
				Scholars		Fellows		
	Men	Women	Total	Men	Women	Men	Women	
\$1500-\$1600..	1	1	2	3	2	2	2	9
1400- 1499..	4	..	4	1	..	2	1	4
1300- 1399..	1	2	3	..	..	3	..	3
1200- 1299..	9	3	12	7	7	9	4	27
1100- 1199..	8	..	8	9	1	11	3	24
1000- 1099..	25	2	27	9	7	21	5	42
900- 999..	19	12	31	10	2	6	..	18
800- 899..	25	9	34	2	1	2	1	6
700- 799..	14	4	18	1	..	..	1	2
600- 699..	6	5	11	3	1	..	..	4
500- 599..	18	14	32	..	1	..	..	1
400- 499..	13	11	24	..	1	..	..	1
300- 399..	15	11	26	..	..	..	..	..
Total....	158	74	232	45	23	56	17	141
Mean.....	\$823	\$701	\$784	\$1,078	\$1,072	\$1,130	\$1,162	\$1,108

*Expenditures included are for tuition, room, board, books and supplies, transportation, clothing, fees for organizations, amusements, and incidentals. Students with dependents have reported for only one person.

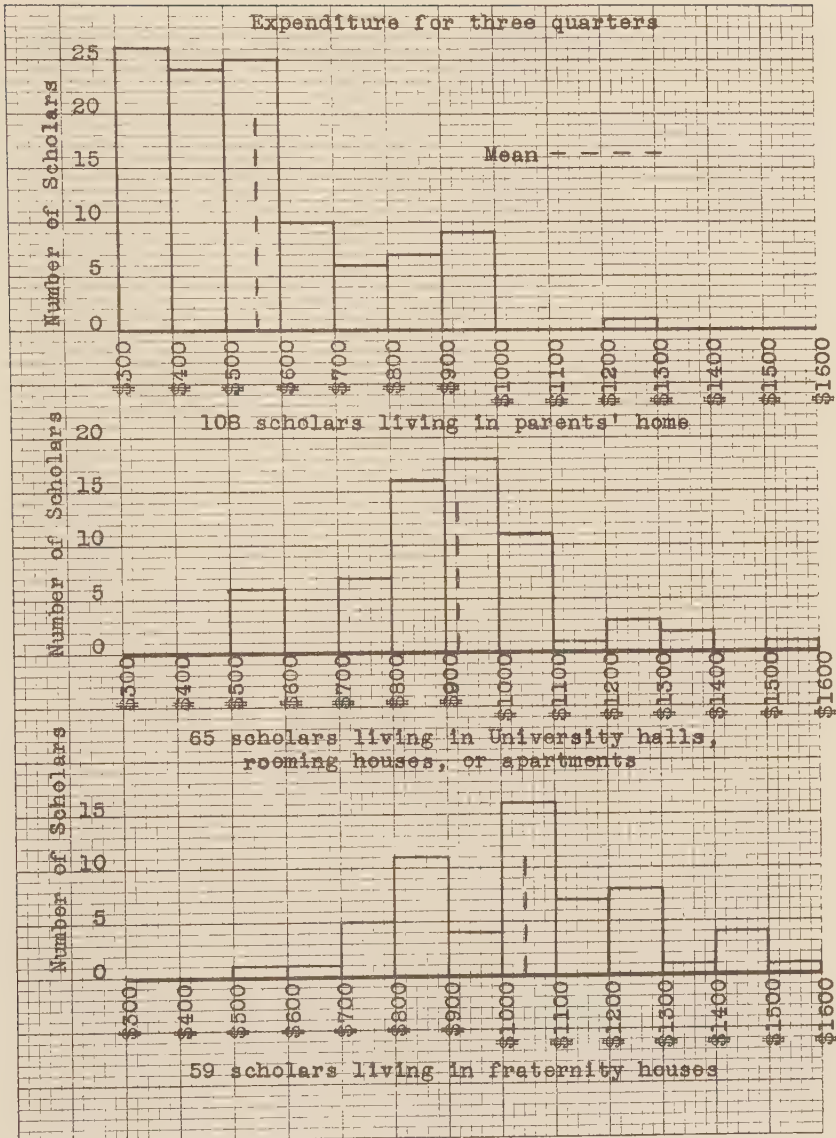


Fig. 6.--Estimated expenditures for three quarters of undergraduate scholars, classified according to place of residence during the academic year.

TABLE XXIV

PERCENTAGES WHICH THE AMOUNTS AWARDED TO SCHOLARS AND FELLOWS
ARE OF THEIR ESTIMATED EXPENDITURES*

Percentage of Expenditure Provided by the Award	Number of Scholars and Fellows							
	Undergraduate Scholars			Graduate				Total
				Scholars		Fellows		
	Men	Women	Total	Men	Women	Men	Women	
100.....	..	..	..	..	..	2	2	4
90-99.....	3	..	3	..	..	4	..	4
80-89.....	3	2	5	..	..	4	1	5
70-79.....	3	1	4	..	1	5	2	7
60-69.....	5	8	13	..	1	6	2	9
50-59.....	8	9	17	1	..	13	5	19
40-49.....	17	3	20	2	1	10	1	14
30-39.....	50	18	68	18	6	8	2	34
20-29.....	47	18	65	18	14	3	2	37
10-19.....	20	13	33	6	..	..	..	6
0- 9.....	2	2	4	..	..	..	..	..
Total.....	158	74	232	45	23	55	17	140
Mean percentage..	34	36	35	29	32	58	59	39
				30		58		

*Based on data from students. Expenditures for dependents are included.

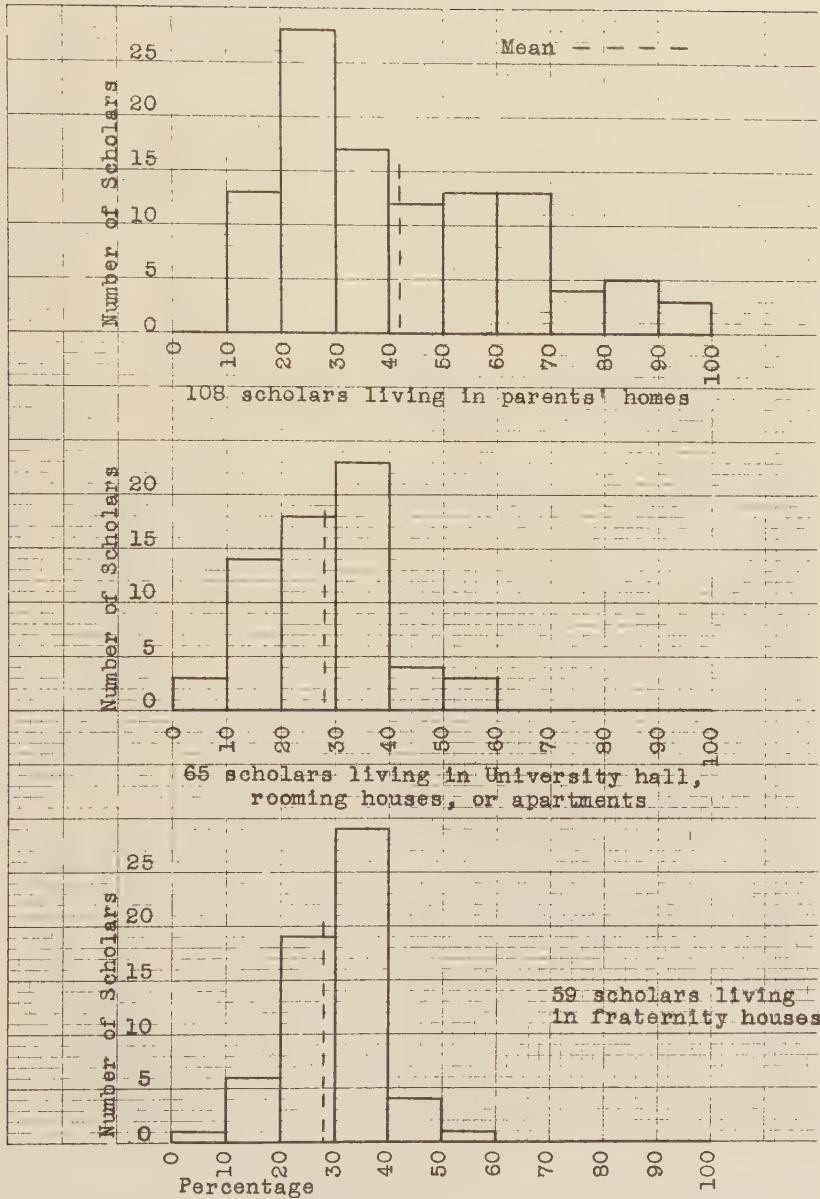


Fig. 7.--Percentages which the scholarship awards to under-graduate scholars are of the estimated expenditures for three quarters, classified according to place of residence during the academic year.

The amounts awarded average approximately one-third (35 per cent) of the expenses of undergraduate scholars, slightly less than one-third (30 per cent) of the expenditures of graduate scholars, and over one-half (58 per cent) for fellows. The amounts awarded provided less than 30 per cent of the expenditures for 44 per cent of the undergraduate scholars, for 56 per cent of graduate scholars, and for 7 per cent of fellows reporting. The stipends provided for 60 per cent or more of the University expenditures reported by 11 per cent of the undergraduates, 3 per cent of the graduate scholars, and 39 per cent of the fellows. The stipends awarded to four fellows were large enough to provide for all expenditures.

Part-Time Remunerative Work

The justification of the use of part-time work for pay as one measure of the adequacy of awards to students is based on the assumption that such work is generally engaged in only in an effort to bolster up inadequate financial resources, so that residence at the University will be possible. Such an assumption, and the data presented, fails to take account of students who may delay entrance into, or drop out of, the University and accumulate funds sufficient to make part-time work unnecessary. Although data on this point are lacking, it may be rather safely assumed that the number of students resorting to the practice is relatively small. Only one student of all those reporting indicated that he was out of residence the previous quarter for full-time work for pay.

Table XXV presents information supplied by scholars and fellows who received awards during the Winter Quarter of 1930-1931 regarding their remunerative work not connected with University grants in the previous quarter (Autumn, 1930). The data of the table show that 66 per cent of the undergraduate scholars work for pay, and that those who work average 18 hours per week. Among the graduate students 49 per cent of the scholars work, averaging 15 hours per week, while 14 per cent of the fellows report remunerative work, averaging 8 hours per week. The percentage of undergraduate women scholars who work is approximately one-fourth smaller than for the corresponding group of men, but the average number of hours of employment for the two groups is practically the same. The situation is reversed for graduate

TABLE XXV

PART-TIME REMUNERATIVE WORK OF SCHOLARS AND FELLOWS*

Hours per Week	Number of Scholars and Fellows							
	Undergraduate Scholars			Graduate				
				Scholars		Fellows		Total
	Men	Women	Total	Men	Women	Men	Women	
63.....	1	..	1	..	..	..	..	..
53.....	1	..	1	1	..	..	..	..
46-48.....	2	..	2	..	..	..	..	..
43-45.....	2	..	2	1	..	..	..	1
40-42.....	3	..	3	..	..	..	..	..
37-39.....	1	..	1	..	..	..	..	..
34-36.....	2	4	6	..	..	..	..	..
31-33.....	1	1	2	1	..	..	..	1
28-30.....	5	1	6	..	2	..	..	2
25-27.....	5	2	7	..	..	..	..	..
22-24.....	3	..	3	1	..	..	..	1
19-21.....	13	4	17	2	..	..	..	2
16-18.....	11	..	11	1	..	..	..	1
13-15.....	15	3	18	2	..	..	..	2
10-12.....	15	5	20	5	2	3	1	11
7- 9.....	6	2	8	2	..	3	..	5
4- 6.....	8	7	15	3	3	1	..	7
1- 3.....	5	..	5	..	3	1	1	5
Total.....	99	29	128	19	10	8	2	39
Work, but hours not given.....	18	9	27	..	..	1	..	1
No work reported	45	36	81	20	10	46	14	90
Grand total..	162	74	236	39	20	55	16	130
Mean hours of all who work	18	17	18	17	10	8	7	13
				15		8		
Percentage of grand total who work....	72	51	66	49	50	16	13	31
				49		14		

*Data secured during the Winter Quarter of 1930-1931 for employment during the previous quarter. Work in connection with University grants is excluded.

students: the proportions of men and women who work are approximately equal, but the number of hours of employment per week is one-fourth greater for men than for women.

A few cases of employment for unusually long hours are indicated in the table. Eleven men report working 40 or more hours per week. The percentage working over thirty hours per week is 9 for undergraduate scholars and 5 for graduate scholars, while the corresponding figures for work of from 16 to 30 hours per week are 21 and 10. No fellow reports more than 12 hours of work per week.

Figure 8 shows that in the four undergraduate classes the percentages of scholars who worked in the Autumn Quarter of 1930-1931 are smallest for both men and women in the first-year class. In each class the proportion of scholarship women who work increases for each of the more advanced classes above the freshman year, while the average amount of employment decreases.

A committee under the chairmanship of Professor Millis, in a study of the distribution of students' time at the University of Chicago,¹ shows that during the Winter Quarter of 1924, 34.2 per cent of a total of 1,658 students in the Colleges for whom data were gathered engaged in remunerative work, the average amount of employment being 20 hours per week. This is higher by two hours than the average work for pay reported by undergraduate scholars for the Fall Quarter of 1930 (Table XXV). If the data for the two years are comparable, the most obvious conclusion is that the percentage of students gainfully employed is larger for students holding scholarships than for the entire student body, although the average number of hours spent in remunerative work is slightly higher for all students who are gainfully employed than for those holding scholarship awards and so employed.

The Millis Committee report points out that
gainful employment, in particular, cuts rather deeply into the time devoted to study. . . . They (men), however, report shorter hours devoted to study and serious reading than do their fellows not gainfully employed.²
For the employed women, however, the situation is the reverse, larger percentages of students working part-time devoting greater

¹H. A. Millis (Chairman), Report of the Faculty-Student Committee on the Distribution of Students' Time, p. 23. Chicago: University of Chicago Press, 1925.

²Op. cit., p. 29.

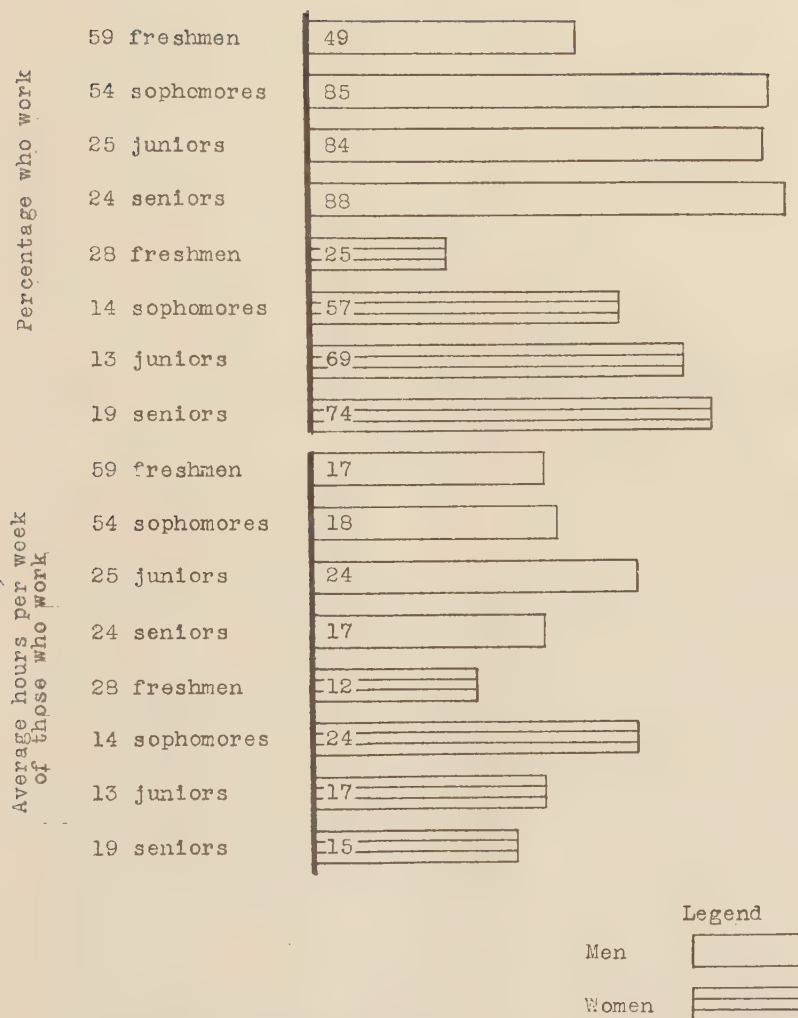


Fig. 8.--Part-time remunerative work of undergraduate scholars during the Autumn Quarter of 1930-1931.

number of hours per week to courses and serious reading.

When the scholarship records of the employed and non-employed groups are compared for the Winter Quarter of 1924, students working "make a better showing than the entire student body of which they are a part." This statement is based on the fact that for the quarter in question, 15.7 per cent of students gainfully employed and carrying three majors received under 6 grade points and 69.2 per cent received under 12 grade points, while for all students carrying three majors the corresponding percentages were 17.0 and 72.9. The report further states that "the handicap in time seems to be outweighed by a greater seriousness of purpose or by an acquired ability to work to advantage."¹ Twenty per cent of the students taking three majors and gainfully employed reported that they work under a strain, more than half of the number stating that the cause of the strain was the time devoted to gainful employment.

A study made by Kennan,² comparing a group of two-year honor scholars with a control group of non-scholarship holders, showed that the former group was employed a greater number of hours per week and received less financial help from family and relatives and borrowed larger amounts of money. The group of scholars reported an average of 5 hours per day for study, while the non-scholars reported 4.4 hours. The former group reported a smaller number of hours per day spent in recreation. The general conclusion of the study was that "the University was awarding the two-year honor scholarships to high school students whose financial problem of going to college is greater than the problem of those who do not receive the two-year honor award."³

It was pointed out in Chapter III that approximately one-fourth of the students in Arts, Literature, and Science received some form of financial aid (not including loans) in 1930-1931. Of the scholars reporting, more than one-half were engaged in remunerative employment. Applications for scholarships are, of

¹Ibid., p. 31.

²John C. Kennan, "A Comparison of the Two-Year Honor Scholars with a Non-Scholarship Group in Respect to Finances, Study, Recreation, and Sleep." Board of Vocational Guidance and Placement, University of Chicago, February, 1933. Mimeographed confidential report.

³Ibid., p. 6.

course, much more numerous than the awards available. The practical problem is to administer the available funds in such a way as seems most likely to serve the purposes for which the awards were established.

It has been shown that awards of partial scholarships were frequently declined by excellent out-of-town students. Moon showed for a single class that students who entered with honor scholarships dropped out of the University in somewhat larger proportions than other students did, even though their grades averaged higher than those of scholarship students who remained in residence. The situation suggests that the number of students in the Colleges and Graduate Schools of Arts, Literature, and Science receiving scholarship aid from the University is unduly large in the light of the amount of aid per student. In other words, the number of students receiving aid is so large that the average amount received per student is frequently too small adequately to serve the intended purpose.

The University makes available estimates of the expenses of residence and suggests that "a student who finds it necessary to finance in whole or in part his University course, should prepare a budget for each year."¹ The statement further suggests that a record be kept

of funds from his family or from his own exertions before entering the University or during vacation, and any funds received through fellowships or scholarships. If his budget shows need of further funds, he may seek employment or a loan.

Upon application for admission to the College, the applicant is requested to give information as to his plans for financing the college course and for part-time remunerative work. Aside from this information secured before admission no evidence was found in the course of the study that student budgets were used by officers administering scholarship or fellowship funds, or that efforts were made to plan with students for a balanced budget after the student's first academic year.²

¹Awards and Aids. Announcements of the University of Chicago, Vol. XXX, No. 21 (April 15, 1930), p. 7. Chicago: The University of Chicago Press, 1930.

²Application forms used in 1935-1936 for undergraduate scholarships and for loans request information regarding financial needs and resources of students. A definite effort is made to balance the student's budget.

A statement in the bulletin on Awards and Aids says:

It is especially important that students coming to the University for the first time have sufficient money to meet their expenses for at least a few months. The opportunities for earning money increase as students become more acquainted with college requirements and city conditions and as they¹ demonstrate their efficiency in special types of service.

It seems likely that students who contribute to their own support, either wholly or in part, find their own financial resources dwindling after the first few months of first year in college, and must depend increasingly on their own resources or on financial assistance from the University. It has already been shown (Figure 8) that for undergraduate scholarship-holders the percentage engaged in part-time work is practically twice as large above the entering year as for the freshman class.

These considerations seem to point to the desirability of giving more attention to the plans of students for financing their University residence. In the case of scholarship-holders who are selected because of their promise of academic achievement above the average of the University level, it seems particularly desirable to advise and assist in financial planning to the end that excellent students may be conserved to the institution, and complete their University courses of study.

Summary

The mean for endowed and honor scholarship stipends in the Colleges of Arts, Literature, and Science for 1929-1930 is \$218, and for 1930-1931, \$207. In the former year, 50.7 per cent of the awards are for amounts of more than \$250, while in 1930-1931 the corresponding percentage is 40.9. Slightly more than 5 per cent of the stipends awarded in each of these years are for amounts of \$50 or less.

Based on the purpose of the grants, the average per student aided is lowest for the purpose of rewarding high scholarship in the University and highest for promoting research by students. The average for the former is \$177 per student; for the latter, \$763 per student. For the purpose of financing departmental service, stipends of approximately \$300 or more are in the majority.

³Ib.¹Op. cit., p. 19.

It is open to serious question whether or not small awards for students who have serious financial difficulties are for the best interests of either the University or the student. An increase in the size of stipends for fellowships was recommended and carried out when \$1,000 stipends were provided in 1929; but in 1930-1931 more than one-half of the fellowship awards in the Graduate Schools of Arts, Literature, and Science were less than \$700.

Expenses of students are estimated by the University at an average of \$1,335, the range being from \$909 to \$1,680. The average expenditure for three quarters reported by undergraduate scholars is \$784 and by graduate scholars and fellows is \$1,108. The average stipend averaged paying slightly more than one-third of the expenses of undergraduate scholars, slightly less than one-third of the expenditures of graduate scholars, and over one-half for fellows.

During one quarter (Winter, 1930-1931), 66 per cent of the undergraduate scholars reported working for pay, and 31 per cent of the graduate scholars and fellows supplemented their incomes in this way.

CHAPTER V

SERVICE RENDERED BY STUDENTS RECEIVING GRANTS

Undergraduate students receiving grants at the University of Chicago are not required to render service of any kind in return for the stipends paid to them. For a number of years part-time service in the libraries was considered as a form of scholarship aid, and the sums paid for this service were reported by the Dean of the College as scholarship aid to students. This practice was discontinued in 1922, when the administration of student-service in the libraries was put entirely in the hands of the library administration.¹ Other types of scholarships awarded in the Colleges of Arts, Literature, and Science have not in recent years required service of the holders.

Graduate students who hold endowed or graduate honor scholarships are not required to render any form of service to the University. As the name implies, service scholars are required to render service, not less than eighty hours per quarter being the stated amount of time to be given in service to the department making the nomination. In case the department has no suitable service which the scholar may render, the time may be served in the University Libraries. Noyes Scholarships, awarded to graduate and undergraduate students, have no requirement of service.

The bulletin on Awards and Aids states that

Each fellow makes a written report to the Dean at the beginning of each quarter. This report outlines his work as a student, and the work assigned to him as an officer of the University for the current quarter. . . .

The University asks of each University fellow "a modicum of service," but in no case is he expected to devote so much time to

¹President's Report, 1921-1922, p. 53. Chicago: University of Chicago Press, 1922.

²Awards and Aids. Bulletin of the University of Chicago, Vol. XX, No. 21 (April 15, 1930), p. 4. Chicago: University of Chicago Press, 1930.

TABLE XXVI

NUMBER AND PERCENTAGE OF GRADUATE SCHOLARS, FELLOWS, AND STUDENT ASSISTANTS WHO REPORT EACH TYPE OF UNIVERSITY SERVICE

Type of Service	Scholars		Fellows		Assistants		Total	
	Num- ber*	Per- cent- age	Num- ber*	Per- cent- age	Num- ber*	Per- cent- age	Num- ber*	Per- cent- age
Laboratory assistant.....	8	11.8	19	23.8	31	49.2	58	27.4
Reader.....	14	20.6	18	22.5	18	28.6	50	23.7
Assist in research project.....	9	13.2	11	13.8	13	20.6	33	15.6
Attendant in library or reading room....	11	16.3	8	10.0	4	6.4	23	10.9
Instructor.....	..	..	6	7.5	12	19.1	18	8.5
Secretarial, clerical, etc...	4	5.9	7	8.8	..	..	11	5.2
Bibliographical...	5	7.4	3	3.8	1	1.6	9	4.3
Book reviews and departmental journals.....	1	1.4	5	6.3	..	..	6	2.8
Miscellaneous.....	20	29.4	6	7.6	9	14.3	35	16.6
No service.....	15	22.1	22	27.6	3	4.8	40	19.0
Number reporting.....	68	..	80	..	63	..	211	..

*Duplicates, consisting of students who report more than one type of service, are included.

the work "as to interfere seriously with his own study."¹ In the discussion of special fellowships, however, no further reference is made regarding a requirement of service.

Assistants have rank as officers of the University and are listed in the catalog by some departments as officers of instruction. They are selected by the departments to render some specific service, such as part-time teaching, laboratory service, and the like. A list of assistants, secured from the President's Office, was checked against the register of students as furnished by the Cashier's Office for the Winter Quarter of 1931, and only those registered for one or more courses during the Winter Quarter of 1930-1931 are included in the data of this chapter.

Types of Service

Graduate students holding scholarships, fellowships, and assistantships during the Winter Quarter of 1931 gave information requested on a questionnaire form regarding the kinds of University service rendered in connection with the grants for the previous quarter. These data are presented in Table XXVI. Graduate students holding Noyes Scholarships are not included.

One-half of the graduate scholars, fellows, and student assistants served as laboratory assistants or readers. Approximately one out of four scholars or fellows reported no service for the Autumn Quarter of 1930. The majority of those who indicated that no service was rendered held graduate honor scholarships, which entail no service requirement, and special fellowships.

Each University fellow makes a written report to the Committee on Fellowships and Scholarships at the beginning of each quarter. This report outlines his work as a student, private research undertaken, and the work assigned to him as an officer of the University. The information given regarding work assigned for the three quarters of the academic year 1930-1931 is presented in the form of percentages in Table XXVII.

The assignments most frequently reported by University fellows are assistant to an instructor in the department and work as laboratory assistant. The percentage of fellows reporting no work assigned by the department is increased during the Spring Quarter by five students who completed the service assigned by

¹Ibid., p. 4.

TABLE XXVII

PERCENTAGE OF UNIVERSITY FELLOWS WHO REPORT EACH TYPE OF WORK
ASSIGNED AS AN OFFICER OF THE UNIVERSITY

Type of Work	Quarter, 1930-1931		
	Autumn	Winter	Spring
Assistant to instructor.....	22.9	28.8	27.0
Laboratory assistant.....	20.0	10.0	9.5
Departmental or research assistant...	2.9	5.5	1.6
Reader.....	7.1	12.3	11.1
Book reviews and departmental journals.....	7.1	6.9	6.4
Bibliographical.....	5.7	9.6	4.8
Secretarial, clerical, etc.....	8.7	2.7	3.2
Instructor.....	2.9	...	...
Miscellaneous.....	1.4	4.1	3.2*
No work reported.....	21.4	19.2	33.3*
Number reporting.....	70	73	63

*Five students report that "service was completed in the Autumn and Winter Quarters."

the departments during the two previous quarters. Only 2.9 per cent of the University fellows (two students) report serving as instructors (the Autumn Quarter), although a number of those assisting members of the faculty take over some of the minor duties of instructors in class administration.

Variations in the percentages of fellows rendering similar types of service in the same quarter, as reported in Tables XXVI and XXVII are explained by several factors: the inclusion of reports from special fellows in the former table, while the latter deals only with University fellows; differences in the terms used to designate some of the types of service; and the fact that the information upon which Table XXVI is based was given shortly after the close of the quarter, while the reports on which Table XXVII is based were made at the beginning of each quarter.

Amounts of Service

The questionnaires circulated among graduate students receiving grants during the Winter Quarter of 1931 asked for a statement of the average number of hours devoted to the various types of University service rendered during the previous quarter. The information furnished is presented in Table XXVIII. The

TABLE XXVIII

NUMBERS AND PERCENTAGES OF SCHOLARS, FELLOWS, AND STUDENT ASSISTANTS WHO REPORT VARIOUS NUMBERS OF HOURS PER WEEK FOR UNIVERSITY SERVICE CONNECTED WITH THE GRANT

Hours of Service per Week	Scholars		Fellows		Assistants		Total	
	Num- ber	Per- cent- age	Num- ber	Per- cent- age	Num- ber	Per- cent- age	Num- ber	Per- cent- age
46-48.....	..	..	..	..	1	1.7	1	0.5
43-45.....	..	..	..	..	1	1.7	1	0.5
40-42.....	..	..	..	..	..	..	..	..
37-39.....	..	..	..	..	1	1.7	1	0.5
34-36.....	..	..	..	..	2	3.3	2	1.0
31-33.....	..	..	..	..	..	..	..	..
28-30.....	..	..	1	1.4	..	..	1	0.5
25-27.....	..	..	..	..	1	1.7	1	0.5
22-24.....	..	..	1	1.4	2	3.3	3	1.5
19-21.....	..	..	..	..	..	..	..	..
16-18.....	..	..	1	1.4	4	6.7	5	2.6
13-15.....	1	1.6	6	8.2	10	16.7	17	8.7
10-12.....	3	4.8	8	11.0	16	26.5	27	13.8
7- 9.....	31	49.2	8	11.0	15	25.0	54	27.5
4- 6.....	12	19.0	12	16.4	4	6.7	28	14.3
1-33.....	1	1.6	14	19.2	..	..	15	7.7
None.....	15	23.8	22	30.0	3	5.0	40	20.4
Total.....	63	100.0	73	100.0	60	100.0	196	100.0
Mean hours....	5.7		5.4		13.3		7.9	

number of students reporting in each group is smaller in Table XXVIII than the number in each corresponding group for the Table XXVI, as some students indicated the types of service rendered but failed to state the number of hours devoted to the service in question. In such cases the type of service is included in the tables dealing with that subject, although the amount of time spent in service is not included in Table XXVIII.

Graduate scholars report an average service of 5.7 hours per week, which is slightly less than the eighty hours per quarter that the University expects. Although more than half of the scholars report service equal to or in excess of the requirement of the University, 44.4 per cent of the total number report either no service or amounts less than that stipulated by the regulations governing the appointment. The average weekly service reported by fellows is 5.4 hours, which is only slightly less than the average for scholars. One fellow reports an excessive amount of service, approximately twenty-nine hours per week, while 23.4 per cent report ten or more hours. The percentage reporting no service is 30.0.

Student assistants report a wider range and greater average amount of time devoted to University service than service scholars or University fellows do. Three assistants, or 5.0 per cent of the total, report no service. Almost one-third of the assistants reporting (63.3 per cent) are engaged in service of ten or more hours per week. The average for the entire group is 13.3 hours per week. Since assistants are employed for varying types of service and are expected to carry less than the normal three majors of course work, it is to be expected that the range and average amount of service rendered to the University will be considerably larger than that for scholars and fellows.

Value to the Student of Service

Services required of those who receive aid may make a definite contribution to the objectives of the students, so that the value of the awards is enhanced beyond the financial value of the stipends. In the questionnaire on student aid, scholars, fellows, and assistants were asked to estimate the value to themselves of each service rendered, using a three-point scale representing great value, some (slight) value, and no value. A further limitation was made by specifying only educational and vocational values.

These evaluations for each service are presented in Table XXIX.

Four types of service are reported as being of great educational and vocational value by one-third or more of those rendering the service: laboratory assistant, assisting in research projects, work as instructor, and work compiling bibliographies.. Secretarial and clerical service is judged as having little or no value by practically all who report. Service as paper reader, and duties in connection with reading rooms and departmental journals are rated as having slight or no vocational value by more than three-fourths of those reporting.

Wide difference of opinion regarding the educational and vocational values of the services rendered by graduate students receiving financial aid from the University is to be expected, since the values are doubtless interpreted largely by each student in terms of the contribution made to his specific aims as a student. It is also pointed out by students reporting that the value of the service to the student depends to a considerable extent on the ability and personality of the member of the faculty to whom the student is responsible, or under whom the work is done.

Other University Activities

Research projects.--Graduate students holding scholarships, fellowships, and assistantships were asked to list on the questionnaire form all the research projects on which they had worked while receiving grants from the University. Group and departmental projects are included, as well as individual research problems as a part of thesis requirements. Table XXX points out the fact that almost one-third of the graduate students reporting had not engaged in any research project while receiving aid from the University. Fellows and assistants report greater participation in research activities than scholars do.

University fellows give a statement on the quarterly Fellowship reports regarding private research undertaken. These reports deal with research activities planned or in progress only for the quarter covered by the report. The data presented in Table XXXI show that more than one-half of the University fellows are engaged in private research, although fewer than one-third report research for a thesis in any one quarter. The percentage reporting no private research is relatively large and ranges from 38.4 to 47.1 per cent of the total.

TABLE XXIX

NUMBER AND PERCENTAGE OF GRADUATE SCHOLARS, FELLOWS, AND
STUDENT ASSISTANTS WHO ASSIGN EACH VALUE TO EACH TYPE
OF UNIVERSITY SERVICE PERFORMED

Type of Service	Educational Value				Vocational Value			
	Number Report- ing	Percentage Assigning Each Value			Number Report- ing	Percentage Assigning Each Value		
		Great	Some	None		Great	Some	None
Bibliographical..	7	43	57	..	5	40	60	..
Instructor.....	17	41	53	6	13	54	38	8
Assistant in research project.....	28	39	57	4	23	39	44	17
Laboratory assistant.....	50	34	52	14	42	38	48	14
Attendant in library or reading room...	23	17	66	17	18	22	50	28
Reader.....	49	14	59	27	34	14	42	44
Secretarial, clerical, etc..	7	14	14	71	4	..	25	75
Book reviews and departmental journals.....	4	..	100	..	3	..	67	33
Miscellaneous....	31	29	45	26	27	22	41	37
All types....	216*	27.3	54.2	18.5	169*	29.0	44.4	26.6

*Duplicates, consisting of students who evaluate more than one type of service, are included.

TABLE XXX

PERCENTAGE OF GRADUATE SCHOLARS, FELLOWS, AND STUDENT ASSISTANTS WHO WORKED ON VARIOUS NUMBERS OF RESEARCH PROJECTS WHILE RECEIVING GRANTS FROM THE UNIVERSITY

Number of Research Projects	Scholars	Fellows	Assistants	Total
None.....	45.7	21.2	28.6	31.3
One.....	38.2	51.2	49.2	46.4
Two.....	10.3	18.8	9.5	13.3
Three.....	2.9	5.0	7.9	5.2
Four or more.....	2.9	3.8	4.8	3.8
Number reporting.....	68	80	63	211

TABLE XXXI

PERCENTAGE OF UNIVERSITY FELLOWS WHO REPORT EACH TYPE OF PRIVATE RESEARCH

Type of Research	Quarter, 1930-1931		
	Autumn	Winter	Spring
Thesis.....	21.4	31.5	28.6
Other research.....	30.0	27.4	30.2
Reading.....	1.4	2.7	
No research reported.....	47.1	38.4	41.3
Number reporting.....	70	73	63

Contributions to published literature.--Graduate students receiving grants from the University are being given training in methods of research and, as has been reported in Table XXX, a majority are taking active part in research studies. It is to be expected that the results of some of these studies will be significant contributions to existing knowledge in their respective fields and will be of sufficient interest and value to be published in the departmental and professional journals. The inquiry to students asked for a list of all contributions to published literature, either while receiving grants or as a result of study carried on by means of grants from the University. Published theses and book reviews are included. A small number of articles and papers accepted for publication but not yet published were reported by students, but titles were not included unless it was

clear that publication had taken place at the time of the report.

The data of Table XXXII show that graduate students have made relatively infrequent contributions to published literature while receiving aid from the University. One in every eight fellows has written for publication.

TABLE XXXII
CONTRIBUTIONS TO PUBLISHED LITERATURE BY GRADUATE
SCHOLARS, FELLOWS, AND STUDENT ASSISTANTS

	Scholars	Fellows	Assistants	Total
Number of published papers, book reviews, etc.....	2	28	9	39
Number of students con- tributing.....	2	10	3	15
Percentage of each group contributing.....	2.9	12.5	4.8	7.1
Number reporting.....	68	80	63	211

Courses chosen by University fellows.--On the quarterly report to the Committee on Fellowships and Scholarships the specific courses chosen by each University fellow are listed. Time devoted to courses is not in any sense considered University service, yet it is one of the chief activities of students, and information regarding the number and type of courses taken may be useful in evaluating the University activities of fellows. Table XXXIII shows that a majority of University fellows take three majors for credit in each quarter. The proportion registered for three or more majors decreases from 82.9 per cent in the Autumn Quarter to approximately 74 per cent for the Winter and Spring Quarters.

Table XXXIV presents information regarding the courses taken by University fellows in terms of the level, or degree of academic advancement, of the courses. As the academic year proceeds from quarter to quarter, the percentage of University fellows registered for courses of undergraduate level decreases sharply. The percentages registered in pre-research, problem, and research courses (300 and 400 levels) increase from 85.0 in the Autumn Quarter to 96.6 in the Spring Quarter.

TABLE XXXIII

PERCENTAGE OF UNIVERSITY FELLOWS TAKING EACH NUMBER
OF MAJORS FOR CREDIT

Number of Majors ^A	Quarter, 1930-1931		
	Autumn	Winter	Spring
0.....	..	1.4	..
1.....	5.7	5.5	12.7
1½.....	1.4	..	..
2.....	8.6	16.4	12.7
2½.....	1.4	2.7	..
3.....	72.9	63.0	58.7
3½.....	1.4	1.4	3.2
4.....	8.6	9.6	12.7
Number reporting.....	70	73	63

^AThree majors represent a normal, full-time program.

TABLE XXXIV

PERCENTAGE OF MAJORS OF CREDIT AT EACH COURSE
LEVEL REPORTED BY UNIVERSITY FELLOWS

Course Level ^A	Quarter, 1930-1931		
	Autumn	Winter	Spring
100.....	2.0	1.8 ^B	0.6
200.....	13.0	5.1	2.9
300.....	53.6	58.4	54.6
400.....	31.4	34.8	42.0

^ACourses of 100 level are primarily for Junior College students; of 200 level, for Senior College students; of 300 level, informational and advanced technical courses for college seniors and graduate students; of 400 level, pre-research, problem, and research courses for graduate students.

^BThree majors in the Law School are not included.

Summary

Holders of service scholarships, University fellowships, and assistantships are the only recipients of aid of whom service to the University is required. Assistants are ordinarily selected to render specific types of service, the remuneration being "according to the type of service rendered and the length of appointment."

Service scholarships, the stipend of which is normally the same as for graduate honor scholarships, require service of eighty hours per quarter. University fellows are considered as officers of the University, and service in amounts not to "interfere seriously" with study is required of them.

When the amounts of service actually reported for a given quarter (Autumn, 1930) by graduate students holding service scholarships and University fellowships are investigated, a great variation from the normal requirement is apparent, the range being from no service to approximately 29 hours per week. The average for all reporting is 5.5 hours per week. More than one-fourth of the same group of students report no research projects while receiving stipends from the University.

For the Fall Quarter of 1930, student assistants average 13.3 hours of service per week, and only 5 per cent of the entire group reporting indicate that no service is rendered to the University. In general, students do not place any great amount of educational or vocational value to themselves on the services they are called upon to render.

More than one-fourth of the 211 graduate students receiving stipends during the Winter Quarter of 1931 indicate that they have taken no part in any research projects while receiving grants from the University. The percentage of University fellows who report no private research during three quarters of the academic year 1930-1931 range from 38.4 to 47.1. Of the scholars, fellows, and student assistants, 7 per cent report some contribution to published literature.

CHAPTER VI

ACHIEVEMENT OF SCHOLARS AND FELLOWS DURING RESIDENCE

An investment of endowed funds totaling over \$2,500,000 and expenditures of more than \$360,000 are represented in the program of student aid in the forms of scholarships, fellowships, assistantships, and tuition remissions to students in the Colleges and Graduate Schools of Arts, Literature, and Science for the fiscal year closing June 30, 1931. It is scarcely open to question that the payment of a sum of this size, either directly to or in the form of tuition fees for a selected group of students, has a salubrious effect on the welfare of many of the students receiving aid. The University is not primarily an eleemosynary institution, however; its interest in the indigent student, per se, is secondary. As an educational institution the University has certain definite aims and objectives, even though they may not be definitely stated and defined.

The purpose of this chapter is to present objective data as a basis for a partial evaluation of the products of the system of student aid in the Colleges and Graduate Schools of Arts, Literature, and Science. Consideration in this chapter is limited to scholarships and fellowships. It is recognized that exact measurements of all the achievements of even limited groups of men and women are impossible and that attempts in that direction are often futile. It is also granted that there will be no unanimous acceptance of any objective measure which attempts to evaluate individual achievement. A survey of the literature of higher education fails to reveal any significant effort to measure effectively the relative achievement, both during and after residence, of men and women who were given financial assistance by means of scholarships and fellowships. It may be that the difficulties which are inherent in the problem are responsible for the lack of objective studies in the field.

The criteria used to measure the achievement of scholars and fellows are limited to those already developed which have some recognition of value, and for which data are available. The

absence of adequate records which continue beyond the end of the period of formal education makes more difficult any effort to gather objective evidence regarding the contributions which former students have made to the objectives of the University. The data to be presented will be limited to measures of the following types: marks made in courses in the University, undergraduate activities and honors, participation in research projects, contributions to published literature, and Ph.D. degrees received. Only in the first type of data--marks made in courses--are the same criteria used as measures of achievement for both scholars and fellows.

Marks in University Courses

Marking systems.--Two systems of marks were in use in Arts, Literature, and Science at the time the data for this study were gathered. The marks used in the Colleges were the letters A, B, C, D, and F, to which are assigned the grade point values of 6, 4, 2, 0, and -2, respectively. Grades of A, B, C, and D carry course credit, and F represents a failure; however, an average of C, or two grade points, is required for graduation from the Colleges. Since the numerical evaluation of the marks lends itself more easily to statistical treatment, and is used by the University in determining relative scholastic standings, it is used as a basis for the study of marks of undergraduate students.

The marking system in the Graduate Schools of Arts, Literature, and Science was as follows: H, credit with distinction; P, pass; U, undergraduate credit; F, fail; and Inc., incomplete. Only the first two marks carry graduate credit. A mark of incomplete may be removed and credit gained by satisfactorily completing the deficiency within a specified time after the mark is incurred. Since the various letters carry no numerical point value, the unit of measurement used for the study of the marks of graduate students is the percentage of majors passed with distinction. In computing this percentage the following arbitrary limitations were made: marks made under systems other than that already described¹ are not included; no grades of incomplete are

¹The marking system described was instituted at the beginning of the Summer Quarter of 1926. In some cases graduate students registered for courses in professional schools having a different system of marks, as in the Law and Divinity Schools.

included (since these may be changed to more or less favorable permanent marks); a course carrying credit of one minor is given one-half the weight of a course carrying credit of a major (since a minor gives academic credit equal to one-half the credit of a major); the record of no student is included which shows less than two quarters of residence and three majors of credit; and only marks in courses of 300 and 400 levels¹ are used. The marks used in this section fall within the period beginning with the Summer Quarter of 1926 and ending with the Winter Quarter of 1931.

Marks of freshman scholars.--In studies made in the office of the Registrar of the University, Moon has shown conclusively that the students holding entrance scholarships during the years 1919-1925 are superior to their class averages in grade-point average during the freshman year, in scholastic average at graduation, in the percentage of each class who continue in the University each successive year and through to graduation, and in scholastic honors won during residence.² Of the two types of entrance scholarships awarded during the period covered by Moon's study the group of students who won freshman scholarships by competitive examinations surpassed the group of students awarded Honor Entrance Scholarships on the basis of their secondary school records in each item in which comparison was made.

Moon's study of students holding entrance scholarships was completed in the autumn of 1929. The first appointments to the Two-Year Honor Scholarships for freshman men were effective at the beginning of that quarter, so that no information was then available regarding the scholastic standing of this group. These awards, begun in 1929-1930, have not functioned long enough to make possible an evaluation of the achievement of the students selected, as Moon has done for the competitive Examination and Honor Entrance scholars. Scholarship records for the first year of the award have been compiled, however, and these are presented

¹Courses of 300 level are informational and advanced technical courses for college seniors and graduate students. Courses of 400 level are pre-research, problem, and research courses for graduate students.

²George R. Moon, "Records of Students Who Enter University with Freshman Scholarships," School Review, Vol. XXXVIII, No. 6 (June, 1930), pp. 443-49.

in Table XXXV, together with corresponding records of holders of the other two types of freshman scholarships.

TABLE XXXV

NUMBER OF SCHOLARSHIP STUDENTS MAKING EACH GRADE-POINT AVERAGE, FRESHMAN YEAR IN COLLEGE, 1929-1930

Grade-Point Average*	Number in Each Group Making Each Average							
	Examination Scholars		Honor Entrance Scholars		Two-Year Honor Scholars	Entire Group		
	Men	Women	Men	Women	Men	Men	Women	Total
6.....	2	..	1	..	..	3	..	3
5-5.99.....	5	1	7	3	4	16	4	20
4-4.99.....	7	6	5	11	11	23	17	40
3-3.99.....	4	3	8	4	14	26	7	33
2-2.99.....	3	2	7	4	5	15	6	21
1-1.99.....	..	1	1	..	5	6	1	7
0-0.99.....	1	..	1	..	..	2	..	2
Total....	22	13	30	22	39	91	35	126
Mean.....	4.33	3.96	3.86	3.82	3.62	3.87	3.87	3.87
Mean of group..	4.19		3.84		3.62		3.87	

*See p. 87 for a description of the marking system.

The data of Table XXXV, in addition to agreement with the findings of Moon that freshman scholars selected by competitive examinations make higher scholarship records than Honor Entrance scholars do, show further that the average grade of Two-Year Honor scholars is lower than that of either of the other two groups. The differences of the means of the three groups of scholars are: Examination and Honor Entrance, $.35 \pm .18$; Examination and Two-Year Honor, $.57 \pm .19$; and Honor Entrance and Two-Year Honor, $.22 \pm .17$.

Of the 126 freshman scholars, 9 had less than the two grade-point average required for graduation, 5 of the 9 being holders of Two-Year Honor Scholarships. The percentages of scholars in each group averaging less than three grade points are:

Competitive Examination scholars, 20.0 per cent; Honor Entrance scholars, 25.0 per cent; and Two-Year Honor scholars, 25.6 per cent. Of the entire group of scholars one-half maintain an average of four or more grade points.

It should be pointed out that scholarship as represented by marks is only one of the criteria used in selecting the Two-Year Honor scholars, as considerable importance is attached to the fact that students have outstanding records in secondary school for participation in activities of various kinds. When compared with the grade-point average of two thousand freshmen entering the University during the years 1924-1927, inclusive, reported by Moon as 2.64,¹ it will be observed that the Two-Year Honor scholars have maintained during their first year a significantly higher scholarship rating than the average of the freshman classes of the years mentioned, even though they have ranked below the other two types of freshman scholars in average marks.

Grade-point average at graduation.--In order to supplement the study of scholarship averages reported by Moon, extending it to cover all types of scholarships offered in the Colleges, the grade-point average at graduation of 334 students who held undergraduate honor and endowed scholarships during the four years from 1925-1926 through 1928-1929 were secured. In some cases a single student held during that period Entrance, Honor, and Endowed Scholarships, or a combination of two of the three. In all such cases students are included in each group in which the records show they held scholarship awards. Duplications are eliminated in the total, however. Grade-point averages at graduation from the Colleges are reported for 160 students who held Noyes Scholarships between 1922-1923 and 1928-1929. These data are presented in the same table with other types of scholarships for undergraduate students, but are not combined with them.

For comparison with the grade-point averages of students who held scholarships, the distribution of the grade-point average at graduation of 300 students selected at random from among the graduating classes of 1928, 1929, 1930, and through the Winter Quarter of 1931 are also presented. This random sample represents a cross-section of the graduates, without regard to whether or not they held scholarships. These data regarding the marks of

¹Moon, op. cit., p. 447.

scholars and a random sample of all students are presented in three forms: Table XXXVI shows the number of students in each classification, Table XXXVII presents percentages of the total in each of the groups, and Table XXXVIII presents the same data in the form of cumulative percentages. It should be pointed out that the writer has made an arbitrary selection in gathering the data by including only those students who have received the bachelor's degree.

For the several groups of students those awarded honor scholarships other than Honor Entrance (Second-, Third-, and Fourth-Year Honor Scholarships) have the highest grade-point average at graduation from the Colleges of any of the scholarship groups, the mean being 5.03 grade points. The other groups, with the mean grade-point averages, are: Examination Entrance, 4.65; Endowed, 4.60; Honor Entrance, 4.32; and Noyes, 3.25. For the entire group of 334 students holding honor and endowed scholarships the mean at graduation is 4.64 grade points.

The fact that holders of honor scholarships other than Honor Entrance lead all other groups in grade-point average at graduation is to be expected, since these awards are made after the freshman year and to the group of students who rank highest in scholarship in each class.

The mean grade-point average of each of the scholarship groups, save for Noyes scholars, is significantly higher than that representative of the random sample of all students receiving the bachelor's degree. The smallest ratio between the actual difference of the means and the probable error of the difference is approximately eleven.¹ When the mean for the total group of honor

¹The statistical significance of the difference between two means may be measured by the ratio between the observed difference of the means and the probable error of the difference of the means. If this ratio is as large as three the chances are 9 out of 1,000 that the difference is significant; that is, is not due to chance factors. As the ratio increases in size the probability that observed differences are significant and are not due to inadequacy of the size of the sample, are increasingly larger. A ratio of 4.5 indicates that the chances are two out of 1,000 that the difference is significant. For a full discussion of the subject, see Karl J. Holzinger, Statistical Methods for Students in Education, pp. 235-57. Chicago: Ginn and Company, 1928.

TABLE XXXVI

NUMBER OF UNDERGRADUATE SCHOLARS AND NUMBER OF RANDOM SAMPLE
OF ALL STUDENTS HAVING EACH GRADE-POINT AVERAGE AT THE
TIME OF RECEIVING THE BACHELOR'S DEGREE*

Grade-Point Average	Number of Students in Each Group						
	Entrance, Honor, and Endowed Scholars					Noyes Scholars	Random Sample of All Students
	Entrance		Endowed and Annual**	Honor Other than En- trance	Total		
	Exami- nation	Honor					
6.....	..	..	1	1	2	..	..
5.5-5.99...	8	9	9	40	42	..	8
5 -5.49...	12	15	34	56	81	3	15
4.5-4.99...	10	14	34	44	83	9	21
4 -4.49...	5	10	18	27	54	17	27
3.5-3.99...	7	14	16	6	42	30	53
3 -3.49...	3	13	4	1	21	32	61
2.5-2.99...	1	2	1	..	4	36	69
2 -2.49...	1	3	2	..	5	33	46
Total....	47	80	119	175	334	160	300
Mean.....	4.65	4.32	4.60	5.03	4.64	3.25	3.43

*Scholarships were awarded during the four years 1925-1926 through 1928-1929, except Noyes Scholarships, which fall within the period from 1922-1923 through 1929-1930. All scholars for whom data are given had received the bachelor's degree by the end of the Winter Quarter of 1930-1931. Students in the random sample received the bachelor's degree between 1927-1928 and the end of the Winter Quarter of 1930-1931. See p. 87 for a description of the marking system.

**The endowed Noyes awards are omitted from the general group of endowed scholarships and given special consideration in the second column from the right.

TABLE XXXVII

PERCENTAGE OF UNDERGRADUATE SCHOLARS AND PERCENTAGE OF RANDOM SAMPLE OF ALL STUDENTS HAVING EACH GRADE-POINT AVERAGE AT THE TIME OF RECEIVING THE BACHELOR'S DEGREE*

Grade-Point Average	Percentage of Students in Each Group						
	Entrance, Honor, and Endowed Scholars					Noyes Scholars	Random Sample of All Students
	Entrance		Endowed and Annual	Honor Other than En- trance	Total		
	Exami- nation	Honor					
6.....	..	..	0.8	0.6	0.6	..	..
5.5-5.99...	17.0	11.3	7.6	22.9	12.6	..	2.7
5 -5.49...	25.5	18.7	28.6	32.0	24.2	1.9	5.0
4.5-4.99...	21.3	17.5	28.6	25.1	24.8	5.6	7.0
4 -4.49...	10.6	12.5	15.1	15.4	16.2	10.6	9.0
3.5-3.99...	14.9	17.5	13.4	3.4	12.6	18.8	17.7
3 -3.49...	6.4	16.3	3.4	0.6	6.3	20.0	20.3
2.5-2.99...	2.1	2.5	0.8	..	1.2	22.5	23.0
2 -2.49...	2.1	3.8	1.7	..	1.5	20.6	15.3

*Based on the data of Table XXXVI.

TABLE XXXVIII

PERCENTAGE OF UNDERGRADUATE SCHOLARS AND PERCENTAGE OF RANDOM
SAMPLE OF ALL STUDENTS HAVING EACH INDICATED GRADE-POINT
AVERAGE AT THE TIME OF RECEIVING THE BACHELOR'S DEGREE*

Grade-Point Average	Cumulative Percentage for Each Group						
	Entrance, Honor, and Endowed Scholars					Noyes Scholars	Random Sample of All Students
	Entrance		Endowed and Annual	Honor Other than En- trance	Total		
	Exami- nation	Honor					
6.....	..	..	0.8	0.6	0.6	..	..
5½ or more.	17.0	11.3	8.4	23.4	13.2	..	2.7
5 or more.	42.6	30.0	37.0	55.4	37.4	1.9	7.7
4½ or more.	63.8	47.5	65.5	80.6	62.3	7.5	14.7
4 or more.	74.5	60.0	80.7	96.0	78.4	18.1	23.7
3½ or more.	89.4	77.5	94.1	99.4	91.0	36.9	41.3
3 or more.	95.7	93.8	97.5	100.0	97.3	56.9	61.7
2½ or more.	97.9	96.3	98.3	100.0	98.5	79.4	84.7
2 or more.	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Based on the data of Table XXXVI.

and endowed scholars is compared with the mean of the random sample, the observed difference of the two means is found to be approximately twenty-four times the probable error of the difference of the means.

Applying the same statistical treatment to the difference of the means for the sample of all students and for the group of Noyes scholars, it is found the observed difference of 0.18 between the two means is 3.6 times the probable error of the difference of the means. The probability is, therefore, that the differences of the means are not due to chance factors, and that Noyes scholars as a group have significantly lower grade-point averages at graduation than is typical of the whole group of students graduating from the Colleges of the University.

When the percentage distributions of the grade-point averages of the total group of scholars, the Noyes scholars, and the random sample are examined (Table XXXVII) it will be seen that, in general, the larger percentages for the former group are at the upper range of the scholarship ranks, while for the other two groups the reverse is true, the larger percentages tending to appear in the lower range of the scholarship scale.

The data presented as cumulative percentages in Table XXXVIII show that 37.4 per cent of all the graduates holding endowed and honor scholarships averaged five or more grade points, while only 1.9 per cent of Noyes scholars, and 7.7 per cent of the unselected sample of all students were able to maintain such an average. Similarly, only 18.1 per cent of the Noyes scholars and 23.7 per cent of the random sample of all students were graduated from the Colleges with grade-point averages of four or more, while 96.0 per cent of the honor scholars and 78.4 per cent of the total group of honor and endowed scholars were able to maintain this average of four points for the entire undergraduate course. The percentage of the total group of honor and endowed scholars maintaining averages of less than three grade points is 2.7, while for Noyes scholars and for the random sample the corresponding figures are 43.1 and 38.3, respectively.

Marks of graduate students.--A number of students have held more than one type of graduate award within the period covered by the data presented. In such a case the record of the student's marks is included in each appropriate group, duplicates being eliminated only in the total. The data regarding the percentage of total majors passed with distinction by 396 scholars

and fellows, 137 Noyes scholars, and by a random sample of 354 graduate students are presented in three forms: Table XXXIX gives a distribution of the number of students in each group, Table XL shows the percentages of the total in each classification, and Table XLI makes use of cumulative percentages for each group of students.

The number of endowed scholarships awarded to graduate students whose academic records come within the limitations set for this study is so small as to have little statistical reliability. University fellows, with a mean of 44.2 per cent of total majors of graduate courses passed with distinction, lead all the other groups in scholastic standing. Special fellows and honor scholars, with percentages of 43.2 and 40.4, respectively, are next in rank. Service scholars, with a mean percentage of 32.1, rank considerably below the total group of graduate scholars and fellows in the percentage of courses passed with distinction.

Comparison of the mean percentages of total majors passed with distinction by each group of scholars and fellows with the mean of the random sample of 354 graduate students shows that the group of Noyes scholars is the only one which ranks below the sample of the graduate student body. The differences of the means are: Honor scholars and random sample, 12.4 ± 3.98 ; Service scholars and random sample, 4.1 ± 1.98 ; University fellows and random sample, 16.2 ± 1.61 ; special fellows and random sample, 15.2 ± 2.80 ; total scholars and fellows and random sample, 11.6 ± 1.44 ; and random sample and Noyes scholars, 8.1 ± 1.70 . These data indicate that the total group of scholars and fellows, and each of its component groups, with the possible exception of service scholars, rank in mean scholarship standing significantly above the average typical of the graduate student body. On the contrary, Noyes scholars as an average are inferior in scholarship to any of the scholarship or fellowship groups, and to the unselected graduate student body.

When the data are considered as percentages of the total in each group (Table XL), it will be seen that 31.4 per cent of the Noyes scholars make no marks of H (credit with distinction), this proportion being the same as for the sample of the entire body of graduate students. Of the total group of other scholars and fellows, only 9.2 per cent pass no graduate courses with distinction.

TABLE XXXIX

NUMBER OF GRADUATE SCHOLARS AND FELLOWS, AND NUMBER OF RANDOM
SAMPLE OF ALL GRADUATE STUDENTS, PASSING WITH DISTINCTION
EACH PERCENTAGE OF GRADUATE MAJORS*

Percentage of Total Majors Passed with Distinction	Number of Graduate Students in Each Group							
	Scholars and Fellows						Noyes Schol- ars	Random Sample of All
	Graduate Scholars			Fellows		Total		
	En- dowed ^{4,5}	Honor	Serv- ice	Univer- sity	Spe- cial			
91-100	..	3	3	14	5	20	2	12
81- 90	1	1	4	11	4	19	1	13
71- 80	..	4	5	23	3	30	4	16
61- 70	..	1	10	20	6	32	..	15
51- 60	..	2	8	33	8	37	4	17
41- 50	..	2	14	30	5	44	13	33
31- 40	3	2	9	21	4	35	13	41
21- 30	1	5	14	29	10	51	20	23
11- 20	2	4	23	26	7	56	30	58
1- 10	..	2	14	19	3	33	7	15
None	..	4	16	12	6	36	43	111
Total ...	7	30	120	238	61	393	137	354
Mean per- centage.	35.5	40.4	32.1	44.2	43.2	39.6	19.9	28.0

* Graduate scholars and fellows were appointed during the years 1925-1926 through 1928-1929, and Noyes scholars between 1922-1923 and 1929-1930. Students in the random sample were in residence during the Spring Quarter of 1931 but their periods of residence varied over a wide range of years. For all students the only marks used were those given from the Summer Quarter of 1926 through the Winter Quarter of 1930-1931. See p. 87 for a description of the marking system.

**The endowed Noyes Scholarships are omitted from the general group of endowed scholarships and given special consideration in the second column from the right.

TABLE XL

PERCENTAGE OF GRADUATE SCHOLARS AND FELLOWS, AND PERCENTAGE OF
RANDOM SAMPLE OF ALL GRADUATE STUDENTS, PASSING WITH
DISTINCTION EACH PERCENTAGE OF GRADUATE MAJORS*

Percentage of Total Majors Passed with Distinction	Percentage of Graduate Students in Each Group							
	Scholars and Fellows						Noyes Schol- ars	Random Sample of All
	Graduate Scholars			Fellows		Total		
	En- dowed	Honor	Serv- ice	Univer- sity	Spe- cial			
91-100	..	10.0	2.5	5.9	8.2	5.1	1.4	3.4
81- 90	14.3	3.3	3.3	4.6	6.6	4.8	0.7	3.7
71- 80	..	13.3	4.2	9.7	4.9	7.6	2.9	4.5
61- 70	..	3.3	8.3	8.4	9.8	8.1	..	4.2
51- 60	..	6.7	6.7	13.9	13.1	9.4	2.9	4.8
41- 50	..	6.7	11.7	12.6	8.2	11.2	9.5	9.3
31- 40	42.9	6.7	7.4	8.8	6.6	8.9	9.5	11.6
21- 30	14.3	16.7	11.7	12.2	16.4	13.0	14.7	6.5
11- 20	28.6	13.3	19.2	10.9	11.5	14.3	21.9	16.4
1- 10	.	6.7	11.7	8.0	4.9	8.4	5.1	4.2
None	..	13.3	13.3	5.0	9.8	9.2	31.4	31.4

*Based on the data of Table XXXIX.

TABLE XLI

PERCENTAGE OF GRADUATE SCHOLARS AND FELLOWS, AND PERCENTAGE
OF RANDOM SAMPLE OF ALL GRADUATE STUDENTS, PASSING WITH
DISTINCTION EACH INDICATED PERCENTAGE
OF GRADUATE MAJORS*

Percentage of Total Majors Passed with Distinction	Cumulative Percentage for Each Group of Graduate Students							
	Scholars and Fellows						Noyes Schol- ars	Random Sample of All
	Graduate Scholars			Fellows		Total		
	En- dowed	Honor	Serv- ice	Univer- sity	Spe- cial			
91 or more...	0.0	10.0	2.5	5.9	8.2	5.1	1.5	3.4
81 or more...	14.3	13.3	5.8	10.5	14.8	9.9	2.2	7.1
71 or more...	14.3	26.7	10.0	20.2	19.7	17.6	5.1	11.6
61 or more...	14.3	30.0	18.3	28.6	29.5	25.7	5.1	15.8
51 or more...	14.3	36.7	25.0	42.4	42.6	35.1	8.0	20.6
41 or more...	14.3	43.3	36.7	55.0	50.8	46.3	17.5	29.9
31 or more...	57.1	50.0	44.2	63.9	57.4	55.2	27.0	41.5
21 or more...	71.4	66.7	55.8	76.1	73.8	68.2	41.6	48.0
11 or more...	100.0	80.0	75.0	87.0	85.3	82.4	63.5	64.4
1 or more...	100.0	86.7	86.7	95.0	90.2	90.8	68.6	68.6

*Based on the data of Table XXXIX.

Although the combined group of scholars and fellows, not including Noyes scholars, makes a considerably better scholarship average than that of the entire graduate student body of which it is a part, a considerable number of those in each of the groups of scholars and fellows make smaller percentages of marks with distinction than the average for the entire graduate student body. Approximately 40 per cent of the entire group of scholars and fellows, not including Noyes scholars, make less satisfactory scholarship records, as measured by the percentage of majors passed with distinction, than the mean of the unselected graduate student body.

The cumulative percentages of Table XLI show that only 8.0 per cent of Noyes scholars and 20.6 per cent of the random sample of students pass more than 50 per cent of their graduate courses with marks of distinction. In the total group of scholars and fellows 35.1 per cent pass with distinction more than one-half of their graduate courses; for University fellows the corresponding percentages are 42.6 and 42.4, respectively; while for Service scholars the figure is only 25 per cent.

Undergraduate Activities and Honors

The University encourages a group of varied activities among undergraduate students, and provides equipment and facilities for assisting many of the student organizations. Graduate students participate in some activities, such as departmental clubs, and intramural athletics. In general, however, graduate students do not take an active part in the program of organized extra-curricular activities, so that data are presented in this section only for undergraduate students.

Table XLII presents data regarding the percentage of undergraduate students holding scholarships during the Winter Quarter of 1931 who participate in various activities during the academic year. Athletics is the form of activity participated in by the largest percentages of both men and women holding scholarships during the Winter Quarter of 1931, 65 per cent of all men and 41 per cent of the women taking part in some form of organized athletic activity. Of the three forms of sports reported by men, intramurals prove most popular, while major sports and minor

sports are only slightly less popular, as measured by the percentages of the total participating.

TABLE XLII

PERCENTAGES OF UNDERGRADUATE SCHOLARS WHO PARTICIPATE IN VARIOUS ACTIVITIES DURING THE ACADEMIC YEAR

Activity	Percentage of Men and Women in Each Class										
	Freshman		Sophomore		Junior		Senior		Total		
	M	W	M	W	M	W	M	W	M	W	T
Athletics.....	67	50	79	13	52	40	42	47	65	41	57
Major sports..	30	..	34	..	15	..	13	..	28	..	..
Minor sports..	23	..	33	..	15	..	15	..	26	..	..
Intramurals...	27	..	43	..	23	..	33	..	34	..	..
Departmental and other clubs.....	6	20	21	33	15	53	33	47	17	35	23
Honor societies...	11	..	28	..	12	..	38	26	21	11	18
Publications..	17	17	16	7	19	20	25	11	18	14	17
Dramatics.....	8	23	16	20	15	13	21	21	14	20	16
Music.....	9	13	9	27	12	20	13	21	10	19	13
None.....	12	20	10	33	27	20	21	21	15	23	18
Number reporting.	66	30	58	15	26	15	24	19	168	79	247

The activities of departmental and other clubs are actively engaged in by 23 per cent of the total students reporting, the percentage of women participating in this form of activity being twice that reported by men. Eighteen per cent of the 247 scholarship holders report participation in honor societies, while slightly smaller percentages report dramatics and music as forms of student activity in which they take active part. The percentage of women scholarship-holders who report no participation in activities is 23 while the corresponding figure for men is 15.

Data gathered by Robert C. Woellner and reported as a separate project on the survey of the University of Chicago cover various phases of the activities, both during undergraduate

TABLE XLIII

PERCENTAGES OF 1,041 ALUMNI WHO HELD UNDERGRADUATE
SCHOLARSHIPS, AND PERCENTAGES OF 3,494 OTHER
ALUMNI WHO REPORT PARTICIPATION IN VARIOUS
ACTIVITIES AS UNDERGRADUATES

Activity	Percentages of Scholars and Other Students in Graduating Classes of Each Period									
	1893- 1900		1901- 1910		1911- 1920		1921- 1930		Total	
	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others
Social organizations.	31	35	33	32	36	32	45	30	39.4	31.4
Athletics	46	35	37	31	30	28	32	26	32.7	27.5
Dramatics	20	13	15	13	12	11	13	13	13.0	12.6
Publications ...	11	15	9	13	13	8	15	12	13.0	10.7
Music	26	23	11	12	12	11	11	10	11.8	10.9
Elective office.	9	15	13	11	11	8	8	5	10.0	6.9
Student council.	9	12	10	3	4	3	5	4	5.9	4.9
None	29	39	34	40	37	45	29	45	32.4	43.7
Number reporting..	35	130	184	445	335	1,021	487	1,898	1,041	3,494

residence and after graduation from the Colleges, of approximately forty-five hundred students who received the Bachelor's degree from the University in the period from 1892-1893 through 1929-1930. A part of these data, through the courtesy of their compiler, were made available to the writer for reclassification so that comparisons might be made between those students who held scholarships during their undergraduate years and other students who were not so assisted by the University.

Tables XLIII and XLIV present undergraduate activities and scholastic honors of scholarship-holders in comparison with other students, the data being classified according to the periods during which the Bachelor's degrees were conferred by the University. In each of the forms of undergraduate activity listed in Table XLIII the percentages of students who held scholarships are larger than the corresponding figures for all other students reporting. While this trend is not so definitely pronounced in each of the chronological periods shown in the table, the larger degree of participation in student activities by scholarship students is fairly consistent. The percentage of students who report participation in no form of student activity is 32.4 for scholarship students as compared with 43.7 for all other students.

The proportion of students taking part in social organizations increases during the successive chronological periods for holders of scholarships and decreases for other students. Athletic participation by scholars declines in every period except the last; for all other students the decreasing trend continues through the most recent period.

Interesting comparison of participation in undergraduate activities by scholars of 1930-1931 and of the period 1921-1930 is possible from Tables XLII and XLIII. Four of the activities are identical in the two tables: athletics, publications, dramatics, and music. In each of these activities the scholars at the more recent period (1930-1931) show greater degrees of participation; in athletics the increase is 78 per cent. The provision of the Two-Year-Honor Scholarships, beginning in 1929-1930, is probably responsible for a part of the increasing proportion of scholars taking part in athletics and other activities.

Table XLIV points out the superiority, in terms of specific scholastic honors, of those students who held scholarships over the remainder of the student body. The figures for scholarship

TABLE XLIV

PERCENTAGES OF 1,041 ALUMNI WHO HELD SCHOLARSHIPS, AND
PERCENTAGES OF 3,494 OTHER ALUMNI WHO WON SPECIFIC
SCHOLASTIC HONORS AS UNDERGRADUATES

Scholastic Honor	Percentages of Scholars and Other Students in Graduating Classes of Each Period									
	1893-1900		1901-1910		1911-1920		1921-1930		Total	
	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others
Honors, end of Junior College*	26	6	27	8	27	6	41	10	33.7	8.2
Honors, end of senior year* ..	34	19	33	13	25	7	26	7	27.0	8.3
Degree with honor*	23	15	32	18	41	14	43	18	39.6	16.6
Phi Beta Kappa ✓	40	11	26	9	28	4	38	7	32.9	6.2
Sigma Xi (Associate)**	3	1	5	3	8	1	5	2	6.1	1.7
Marshall***	3	4	4	6	6	2	5	1	4.9	1.9
Aide***	0	2	2	2	4	2	4	1	3.7	1.8
None	31	63	37	56	35	74	32	69	33.8	68.8
Number reporting..	35	130	184	445	333	1,021	487	1,898	1,041	3,494

*Based on scholastic standing as measured by marks.

**Honorary scientific organization, interested in fostering research.

***The President of the University selects six men (marshals) and six women (aides) as the most outstanding students, at the end of the junior year.

students are significantly higher than for other students at the end of the junior college, the end of the senior year, and at graduation.

Approximately 9 to 10 per cent of the graduates of the Colleges in recent years have been elected to the Phi Beta Kappa honor society. The percentage of scholarship holders reporting election to this honor society is 32.9, while the corresponding figure for non-scholarship holders is 6.2. In the other scholastic honors shown in Table XLIV, which are elective, the percentages of scholarship holders are significantly larger than the percentages of non-scholarship holders. It is also significant to note that 33.8 per cent of scholarship holders report no scholastic honor during undergraduate residence, while 68.8 per cent of other students report failure to receive any similar recognition.

Trends over the four chronological periods are not consistent for either group for all of the scholastic honors mentioned in Table XLIII. For two of the most important honors, Phi Beta Kappa and degree with honors, the percentages for scholars increase in each decade after 1901-1910, while the proportions winning no scholastic honors decrease.

Ph.D. Degrees Won by University Fellows

A list of students who were selected as University fellows in the period from 1892-1893 through 1926-1927 was secured by reference to the President's Report and the Register of Students of the University for each of the years included in the period mentioned. This list was made the basis of an attempt to evaluate the success of students who were selected as University fellows. While the annual published lists doubtless contain some inaccuracies, such as that occasioned by the appointment of a substitute for a fellow who accepted the appointment but did not serve, it is believed that the list thus compiled is sufficiently accurate to serve all the purposes of this study.

Fellows awarded the Ph.D. degree.--Since any definition of the success of a former graduate student would be somewhat arbitrary and would have validity only in so far as the definition of success was generally accepted, it has been thought best for purposes of this study to use only two criteria of success.

The first of these is the earning of the Ph.D. degree. Although there may be considerable difference in the evaluations of the worth of this award, it is nevertheless an objective of value for the purposes of the study, particularly since assistance toward meeting the requirements of the degree is one of the purposes of the University in making the awards.

Table XLV presents for students awarded University fellowships from 1892-1893 through 1926-1927 the percentage of fellows on whom the Ph.D. degree had been conferred by June, 1931, the data for each department and division being given separately.

The percentage of University fellows on whom the Ph.D. degree has been conferred has tended to increase in each period covered by the study, except for a slight decrease in the second decade. For the entire period of thirty-five years 56.9 per cent of the graduate students awarded University fellowships received the Ph.D. degree by June, 1931.

When the figures for the various divisions are compared, the table shows that the Division of the Biological Sciences, with 67.6 per cent of the University fellows receiving the doctorate, leads the other divisions in this respect. The Division of the Physical Sciences, with 67.1 per cent of its University fellows having received the doctorate over the periods under discussion, ranks second. In the Division of the Humanities 53.2 per cent of students appointed to University fellowships have received the Ph.D. degree, while in the Division of the Social Sciences the percentage is 45.6.

It will be observed from the table that a few departments rank significantly higher in the corresponding percentages than do other departments, even in the same division. In the Departments of Botany, Psychology, and Mathematics, for example, more than 80 per cent of the students appointed to University fellowships during the period from the establishment of the University through 1926-1927 have received the Ph.D. degree.

For some reason certain departments have been decidedly more successful in selecting from among the candidates for University fellowships students who are capable of going forward successfully with the requirements of the University for awarding the Ph.D. degree. If it may be presumed that standards for the doctorate are of relatively equal difficulty in various departments within each division (a thesis which is not advanced by the

TABLE XLV

PERCENTAGES OF UNIVERSITY FELLOWS ON WHOM THE PH. D. DEGREE
HAS BEEN CONFERRED*

Division and Department	Percentages of Fellows of Each Period				
	1893- 1902	1903- 1912	1913- 1922	1923- 1927	Total
Biological Sciences:					
Anatomy	50	50	25	80	48.4
Botany	75	88	93	76	85.7
Home Economics	..	50	33	50	44.4
Hygiene and Bacteriology	..	17	50	29	35.0
Pathology	..	9	60	..	25.0
Physiology	83	50	58	75	63.6
Physiological Chemistry	..	20	71	75	56.3
Psychology	..	89	78	88	83.0
Zoology	71	68	67	82	69.9
Total	72	60	72	70	67.6
Humanities:					
Art	100	100	0	0	12.5
Comparative Philology	70	..	67	100	73.3
Comparative Religion	100	0	..	..	75.0
English	32	56	50	75	50.8
Romance	50	37	63	50	48.6
Germanics	57	43	54	43	50.0
Latin	54	58	53	57	52.9
Greek	64	67	56	50	58.1
Philosophy	64	57	58	64	58.9
New Testament	58	71	43	43	54.6
Oriental Languages	79	48	56	63	50.8
Total	57	54	53	58	53.2
Physical Sciences:					
Astronomy	38	67	69	100	61.8
Chemistry	63	64	77	85	72.4
Geology and Paleontology	46	68	58	47	56.1
Mathematics	58	85	89	88	80.4
Physics	46	59	60	73	60.9
Total	53	69	71	77	67.1
Social Sciences:					
Economics	37	31	22	53	32.3
Education	43	31	49	73	49.4
Geography	..	22	44	55	44.4
History	67	57	50	45	53.9
Political Science	40	40	50	73	48.9
Sociology and Anthropology	52	48	49	56	49.5
Total	48	41	43	58	45.6
Grand Total	56	55	59	64	56.9

*Degrees awarded after June, 1931, are not included.

writer) the data presented seem to indicate that certain departments have been able to secure significantly higher returns from the fellowships allocated to them than have other departments.

Some measure of the extent to which University fellowships have contributed to the number of Ph.D. degrees awarded by the University may be obtained from a study of the percentages of all the doctorates which were awarded to students who held University fellowships. For this purpose the Register of Ph.D. Degree Holders of the University, 1893-1927¹ was checked against the list of University fellows secured from official publications. In a few cases, especially in the first decade, degrees were awarded by departments other than those nominating the fellows. The data are presented in Table XLVI.

The table shows that in the first decade, 76 per cent of the Ph.D. degrees were awarded to students who had held University fellowships. In each following period the percentages decrease, until in the five years from 1922-1923 through 1926-1927 only 37 per cent of the doctorates awarded were to University fellows. Of the almost two thousand Ph.D. degrees awarded over the period covered by the table, 55.0 per cent were to University fellows.

The percentages over the entire period show that the departments making up the Division of the Biological Sciences have the smallest percentage of Ph.D. degrees awarded to University fellows (47.3 per cent), while the Division of the Humanities has the largest percentage (65.0). The percentage distributions for the various departments show a wide range.

If it is assumed that one of the purposes of University fellowships is to give financial aid to students so that they may successfully meet the requirements for the Ph.D. degree, it might be presumed that divisions should be given appropriations for University fellowships somewhat in proportion to the success of their fellows in earning the doctorate. A numerical index of this success may be determined for each of the divisions by computing the ratio of its percentage of fellowships to its percentage of Ph.D. degrees, using only the data for the divisions, as given in

¹Register of Doctors of Philosophy of the University of Chicago, June, 1893--June, 1927. Announcements of the University of Chicago, Vol. XXVII, No. 4 (September 10, 1927), pp. 138. Chicago: The University of Chicago Press, 1927.

TABLE XLVI

NUMBER OF PH.D. DEGREES CONFERRED IN EACH PERIOD, AND
PERCENTAGE OF PH.D. DEGREES IN EACH PERIOD WHICH WERE
CONFERRED ON UNIVERSITY FELLOWS

Division and Department	1893-1902		1903-12		1913-22		1923-27		Total	
	Num- ber	Per- cent- age	Num- ber	Per- cent- age	Num- ber	Per- cent- age	Num- ber	Per- cent- age	Num- ber	Per- cent- age
Biological Sciences:										
Anatomy	2	100	9	78	10	30	10	40	31	51.6
Botany	14	71	39	46	78	54	41	24	172	46.5
Home Economics	..	..	1	100	4	50	10	30	15	40.0
Hygiene and										
Bacteriology	1	100	6	33	13	8	12	8	32	15.6
Pathology	..	..	8	25	11	36	5	0	24	25.0
Physiology	11	91	10	50	19	42	17	6	57	42.1
Physiological										
Chemistry	..	..	4	50	8	50	11	45	23	47.8
Psychology	..	..	22	82	28	71	24	21	74	58.1
Zoology	20	85	24	50	20	60	13	54	77	62.3
Total	48	83	123	54	191	50	143	25	505	47.3
Humanities:										
Art	..	..	1	100	..	..	..	..	1	100.0
Comparative										
Philology	6	100	4	75	2	100	3	67	15	86.7
Comparative										
Religion	2	50	1	0	..	..	1	0	4	25.0
English	9	78	21	81	13	55	37	41	98	57.1
Romance	7	86	8	50	16	75	15	53	46	65.2
Germanics	12	42	21	52	21	67	6	50	60	55.0
Latin	10	90	14	86	15	93	8	50	47	83.0
Greek	9	100	15	87	23	52	6	83	53	73.6
Philosophy	13	85	16	56	25	68	18	61	72	66.7
New Testament	5	40	18	56	16	44	10	50	49	49.0
Oriental Languages.	19	74	15	73	13	69	8	88	55	74.6
Total	92	76	134	68	162	64	112	54	500	65.0
Physical Sciences:										
Astronomy	1	0	7	86	14	71	6	33	28	64.3
Chemistry	19	58	44	50	96	43	66	25	225	40.4
Geology and										
Paleontology	10	100	16	75	39	74	27	52	92	70.7
Mathematics	12	83	34	68	56	61	41	44	143	59.4
Physics	7	86	23	57	46	52	35	46	111	53.2
Total	49	76	124	61	251	55	175	38	599	53.1
Social Sciences:										
Economics	11	100	15	73	17	53	19	21	62	56.5
Education	4	50	7	43	35	49	35	26	81	38.3
Geography	..	..	1	100	9	78	12	67	22	72.7
History	21	71	15	73	29	66	26	35	91	59.3
Political Science..	6	67	5	100	5	40	14	57	30	63.3
Sociology and										
Anthropology	16	50	16	69	23	61	20	25	75	50.7
Total	58	69	59	71	118	58	126	35	361	53.5
Grand Total ..	247	76	440	63	722	56	556	37	1965	55.0

Tables XLV and XLVI. If a division has larger percentages of all the fellowships than of all the Ph.D. degrees the ratio will be larger than one, indicating overproportion of fellowships to Ph.D. degrees conferred. A ratio smaller than one indicates paucity of fellowships in relation to doctorates granted.

Table XLVII presents data showing the adequacy of the provision for University fellowships in proportion to the Ph.D. degrees granted, as measured by the index discussed.

TABLE XLVII
INDEX OF RELATIONSHIP BETWEEN UNIVERSITY
FELLOWSHIPS AWARDED AND PH.D.
DEGREES CONFERRED

Division	Index for Each Period				
	1893-1902	1903-1912	1913-1922	1923-1927	1893-1927
Biological Sciences...	0.75	0.69	0.68	0.71	0.68
Physical Sciences...	1.11	0.82	0.75	0.83	0.80
Social Sciences...	1.02	1.73	1.44	1.07	1.29
Humanities...	1.06	1.13	1.45	1.55	1.40

In terms of the index presented in the table the Division of the Humanities has had for each of the four periods numbers of University fellowships disproportionately large in relation to the number of Ph.D. degrees granted. The ratio increases over each successive period. In the Division of the Social Sciences the ratio of fellowships to doctorates granted decreases for the two most recent periods. The numbers of University fellowships in the Divisions of the Physical Sciences and the Biological Sciences are relatively small in proportion to the numbers of Ph.D. degrees granted.

This index is not presented as a final criterion for determining the relative number of University fellowships to be assigned to each division, as it is realized that other factors may enter into the decision. It suggests, however, that the success of fellows selected may well be considered as an

important factor in making future provision for awards in the various departments and divisions.

Summary

Students awarded competitive Examination Entrance Scholarships for 1929-1930 led recipients of all other freshman scholarships in scholastic standing at the end of the first year in the Colleges.

When the grade-point average at graduation from the Colleges is taken as the criterion of scholastic achievement, the students awarded Second-, Third-, and Fourth-Year Honor Scholarships rank significantly above all other scholarship groups. All of the scholarship groups, except Noyes scholarship-holders, rank above the average of a random sample of students, while the Noyes Scholars rank appreciably lower than the average for other students.

Students holding scholarships and fellowships maintain a significantly high mean percentage of courses passed with distinction in comparison with the random sample of all graduate students. Approximately 40 per cent of the group of Scholars and Fellows, however, average a smaller percentage of high marks than the mean for the random sample of graduate students.

University Fellows lead all other graduate groups in scholastic standing, with Special Fellows and Graduate Honor Scholars ranking second and third, respectively. Noyes Scholars at the graduate level are significantly lower in scholastic standing than are any of the other scholarship or fellowship groups, or the sample of all graduate students.

Data on undergraduate activities and scholastic honors of scholarship-holders and non-scholarship students show that for the past thirty-seven years there has been a larger degree of participation in student activities by scholarship students; an increasing participation in social organizations; and a superiority in terms of specific scholastic honors.

Considering percentages of University Fellows on whom the Ph.D. degree has been conferred, it is shown that some departments have been decidedly more successful than others in selecting students capable of fulfilling successfully the requirements of the University for this award. Over a

thirty-seven-year period more than one-half of the Ph.D. degrees have been conferred on students who were awarded University fellowships. Over successive periods, however, the proportion of all doctorates conferred on holders of University fellowships has steadily declined.

CHAPTER VII

ACHIEVEMENT AFTER GRADUATION

The measures of the success of students after graduation with the Bachelor's degree reported in this chapter include additional schooling and degrees earned above the Bachelor's degree, 1930 salaries, and recognition by listing in Who's Who in America for 1930-1931. For the first three items mentioned the data are based on samples from approximately 4,400 graduates of the years 1893 through 1930. Listing in Who's Who in America is based on a check of all students who received the Bachelor's degree between the years 1896 and 1912, inclusive, as given in The Alumni Directory. For each of the four criteria the data are presented separately for students who received scholarships and for other students.

Achievement for holders of the Ph.D. degree is represented by listing in American Men of Science. All doctorates awarded in Arts, Literature, and Science, as listed in the Register of Doctors of Philosophy of the University were included. Since the fields of knowledge represented in American Men of Science are primarily limited to the departments included in the Divisions of the Biological and the Physical Sciences of the University, graduates of other departments are excluded from the data presented in this chapter. Information is presented separately for students who held fellowships and for other students.

Additional Schooling and Earned Degrees

An institution of higher education which puts special emphasis on a high quality of scholarship at all class levels would rather naturally be expected to train a considerable number of capable undergraduate students for additional study beyond the Bachelor's degree. Tables XLVIII and XLIX present information regarding the additional schooling beyond the Bachelor's degree and the number of degrees earned.

Of the 3,300 non-scholarship students reporting the percentage indicating no schooling above the Bachelor's degree is

TABLE XLVIII

PERCENTAGES OF 996 ALUMNI WHO HELD SCHOLARSHIPS, AND PERCENTAGES OF 3,300 OTHER ALUMNI, WHO HAVE TAKEN ADDITIONAL SCHOOLING SINCE RECEIVING THE BACHELOR'S DEGREE

Additional Schooling above the Bachelor's Degree	Percentages of Scholars and Percentages of Other Students in Classes of Each Period									
	1893- 1900		1901- 1910		1911- 1920		1921- 1930		Total	
	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others
None	9	10	6	18	14	17	19	24	14.9	20.9
Some, less than 1 year	12	16	12	16	22	23	30	34	23.7	27.7
1 year, less than 2.	15	17	24	22	18	25	18	21	18.8	21.9
2 years, less than 3.	26	20	25	20	21	18	13	10	18.4	13.8
3 years or more.....	38	38	33	24	24	17	20	11	24.2	15.6
Number reporting..	34	122	173	411	328	983	461	1784	996	3300
Average years	2.3	2.2	2.2	1.8	1.8	1.5	1.5	1.1	1.71	1.36

TABLE XLIX

PERCENTAGES OF 1,041 ALUMNI WHO HELD SCHOLARSHIPS, AND PERCENTAGES OF 3,494 OTHER ALUMNI, WHO REPORT HAVING EARNED VARIOUS NUMBERS OF DEGREES ABOVE THE BACHELOR'S DEGREE

Number of Degrees Earned above Bachelor's Degree	Percentages of Scholars and Percentages of Other Students in Classes of Each Period									
	1893- 1900		1901- 1910		1911- 1920		1921- 1930		Total	
	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others	Scholars	Others
None	51	51	45	57	51	59	63	75	55.8	67.3
One	34	40	40	33	38	34	31	22	35.1	27.6
Two	14	9	10	9	11	7	5	3	7.9	4.8
Three	..	1	4	0.4	0.3	0.5	0.4	0.1	1.0	0.3
Four	..	..	0.1	0.2	..	..	0.2	..	0.3	0.03
Number report- ing.....	35	130	184	445	335	1021	487	1898	1041	3494

20.9 while the corresponding figure for 996 students holding scholarships is 14.9. When additional schooling above the Bachelor's degree in amounts of less than two years is considered, the data show that the percentages of students not holding scholarships are larger than the corresponding figures for those who held scholarships. For amounts of additional schooling of two years but less than three, as well as for amounts of three years or more, the data indicate that the situation is reversed, students who held scholarships having continued in relatively larger numbers with study of two years or more above the Bachelor's degree than have students who did not hold scholarships.

The average number of years of schooling above the Bachelor's degree has been computed for each period, using the mid-point as the class value of each interval except the last, and using three and one-half years as the value of the final classification. Graduates of each period who held scholarships lead other students in the average number of years of additional schooling; for the entire period the averages are 1.71 years, and 1.36 years, respectively.

This point is further emphasized by the data of Table XLIX, which show that for each number of earned degrees above the Bachelor's degree the percentages of scholarship students are considerably larger than the corresponding figures for other students.

Annual Income Earned

The median annual salaries for 1930 of men who held undergraduate scholarships and received the Bachelor's degree from the University, and similar figures for women, are presented in Tables L and LI. The data are classified both on the basis of amount of additional schooling above the Bachelor's degree and the years elapsed since graduation from the Colleges. In each table the numbers in parentheses under the median salaries indicate the number of cases on which the medians are based.

The data of Table L show that there is a positive relationship between the median annual salaries of men and the amount of time out of college up to a period of approximately fifteen to twenty years. Beyond this period, however, the data fail to indicate any consistent increase in median annual salary for longer elapsed periods after receiving the Bachelor's degree.

TABLE I

MEDIAN ANNUAL SALARIES (1930) OF MEN WHO HELD UNDERGRADUATE SCHOLARSHIPS AND RECEIVED THE BACHELOR'S DEGREE FROM THE UNIVERSITY, ACCORDING TO THE TIME ELAPSED SINCE GRADUATION AND THE AMOUNT OF SCHOOLING ABOVE THE BACHELOR'S DEGREE, 1893-1930

Years of Schooling above Bachelor's Degree (Numbers in Parentheses Indicate the Number of Cases on Which Each Median Is Based)									
Years Elapsed since Receiving Bachelor's Degree	Some, Less Than ½ Year		½ Year, Less Than 1 Year	1 Year, Less Than 1½ Years	1½ Years, Less Than 2 Years	2 Years, Less Than 2½ Years	2½ Years, Less Than 3 Years	3 Years or More	Total
	None	½ Year	1 Year	1½ Years	2 Years	2½ Years	3 Years		
0- 4	\$ 2,400 (16)	\$2,357 (21)	\$2,750 (11)	\$2,500 (17)	\$2,000 (6)	\$ 1,750 (6)	\$ 1,500 (5)	\$ 3,000 (16)	\$2,362 (98)
5- 9	4,500 (20)	3,857 (18)	5,250 (9)	4,000 (10)	3,833 (5)	5,500 (17)	3,833 (9)	3,440 (58)	3,855 (146)
10-14	10,250 (15)	7,000 (14)	6,500 (3)	5,167 (9)	7,250 (3)	5,500 (19)	6,500 (7)	5,000 (38)	5,770 (108)
15-19	7,000 (12)	7,500 (2)	4,500 (2)	6,250 (5)	5,000 (2)	10,333 (16)	4,500 (4)	10,000 (20)	7,125 (63)
20-24	11,000 (6)	3,500 (1)	1,500 (1)	3,750 (5)	3,500 (2)	9,500 (8)	5,000 (6)	6,000 (20)	5,700 (49)
25-29	9,500 (1)	3,500 (1)	9,500 (2)	4,500 (5)	6,500 (2)	2,500 (2)	12,000 (4)	5,000 (16)	5,167 (33)
30-37	11,500 (1)	9,500 (1)	..	..	4,500 (1)	3,500 (5)	..	3,833 (9)	4,125 (17)
Total ...	\$ 4,945 (71)	\$3,375 (58)	\$4,250 (28)	\$3,625 (51)	\$4,100 (21)	\$ 5,500 (73)	\$ 4,375 (35)	\$ 4,216 (177)	\$4,237 (514)

TABLE LI

MEDIAN ANNUAL SALARIES (1930) OF WOMEN WHO HELD UNDERGRADUATE SCHOLARSHIPS AND RECEIVED THE BACHELOR'S DEGREE FROM THE UNIVERSITY, ACCORDING TO THE TIME ELAPSED SINCE GRADUATION AND THE AMOUNT OF SCHOOLING ABOVE THE BACHELOR'S DEGREE, 1893-1930

Years elapsed since receiving Bachelor's Degree	Years of Schooling above Bachelor's Degree (Numbers in Parentheses Indicate the Number of Cases on Which Each Median Is Based)							
	None	Some, Less Than $\frac{1}{2}$ Year	$\frac{1}{2}$ Year, Less Than 1 Year	1 Year, Less Than $1\frac{1}{2}$ Years	$1\frac{1}{2}$ Years, Less Than 2 Years	2 Years, Less Than $2\frac{1}{2}$ Years	$2\frac{1}{2}$ Years, Less Than 3 Years	3 Years or More
0-4	\$1,632 (24)	\$1,691 (31)	\$1,571 (10)	\$1,813 (13)	\$2,250 (3)	\$2,250 (3)	\$2,500 (3)	..
5-9	1,500 (7)	2,083 (11)	2,000 (10)	2,500 (10)	2,333 (8)	1,333 (6)	2,667 (4)	2,750 (9)
10-14	3,500 (1)	2,600 (6)	2,700 (11)	3,000 (10)	3,000 (10)	3,000 (4)	3,500 (2)	3,625 (9)
15-19	2,250 (3)	2,500 (5)	3,250 (7)	2,500 (5)	3,167 (7)	3,333 (4)	2,500 (5)	7,500 (2)
20-24	4,500 (1)	2,000 (4)	3,250 (3)	2,500 (9)	3,250 (5)	3,125 (7)	3,500 (3)	3,625 (5)
25-29	..	..	..	1,500 (1)	5,500 (3)	3,500 (3)	4,500 (2)	3,667 (4)
30-37	..	..	..	..	3,500 (2)	3,500 (2)	2,000 (2)	3,500 (1)
Total	\$1,667 (36)	\$1,914 (57)	\$2,269 (41)	\$2,381 (48)	\$3,000 (38)	\$2,813 (29)	\$,928 (21)	\$3,615 (30)
								\$1,711 (87)
								2,161 (65)
								3,227 (53)
								2,917 (38)
								3,100 (37)
								3,688 (13)
								3,167 (7)
								2,394 (300)

In terms of total amount of schooling, the medians for men indicate that the median salary for 1930 of graduates of the Colleges who have had no schooling beyond the Bachelor's degree is larger than any other group except that with two to two and one-half years of additional schooling. There is no decided trend toward an increase in median salaries for education beyond the Bachelor's degree. In fact, the figures for graduates with no further study are higher in three of the seven chronological groups than in any of the comparable graduating classes regardless of the amount of additional schooling.

The data of Table LI show a considerably different situation for median annual salaries for women. In terms of years elapsed since receiving the Bachelor's degree the trend is noticeably toward higher salaries, the maximum for the total group being reached in the period from twenty-five to twenty-nine years after graduation. In terms of schooling above the Bachelor's degree the trend is also favorable toward additional remuneration for added schooling, the increases in median salary being fairly consistent up to the highest level of graduate training.

Table LII presents a comparison of the median salaries of men and women who held scholarships with other students. This table takes no account of schooling beyond the baccalaureate degree, so that persons excluded from Tables L and LI because of failure to report this item are included in Table LII.

As a group, the men who held scholarships as undergraduates received a median salary in 1930 which was six per cent higher than that of the non-scholarship group. The former achieve the higher median salary by virtue of the superior salaries of the younger groups of graduates, as the scholars rank significantly below the non-scholars for the groups graduated twenty or more years ago.

The median salary of the entire group of women scholars is two per cent below that reported by the other group of women graduates. For the two groups most recently graduated, non-scholars receive somewhat higher salaries; however, twenty years and more after graduation the situation is reversed, and the median salaries of the scholarship groups are consistently higher.

Listing in Who's Who in America

A study of students who have received the Bachelor's degree from the University of Chicago and whose names are listed in

the 1930-1931 edition of Who's Who in America was made for the seventeen-year period beginning in 1895-1896 and closing with 1911-1912. The beginning of this period approximates the date when scholars of the University were first graduated, as Senior College Scholarships were not awarded during the first years of the University. The period included is sufficiently long to give an adequate indication of the trend.

TABLE LII

MEDIAN ANNUAL SALARIES (1930) OF SCHOLARS AND OF OTHER STUDENTS, CLASSIFIED ACCORDING TO SEX AND THE NUMBER OF YEARS ELAPSED SINCE RECEIVING THE BACHELOR'S DEGREE*

Years Elapsed Since Receiving the Bachelor's Degree	Men		Women	
	Scholars	Others	Scholars	Others
0- 4.....	\$2,350 (104)	\$2,292 (309)	\$1,667 (96)	\$1,953 (436)
5- 9.....	3,857 (150)	3,699 (375)	2,161 (65)	2,524 (392)
10-14.....	5,731 (109)	5,880 (232)	2,975 (55)	2,887 (201)
15-19.....	7,125 (63)	6,733 (186)	2,917 (38)	3,123 (139)
20-24.....	5,700 (49)	10,250 (104)	3,067 (38)	2,907 (69)
25-29.....	5,167 (33)	6,833 (79)	3,625 (14)	3,214 (44)
30-37.....	4,200 (18)	6,500 (49)	3,167 (7)	2,800 (28)
Total.....	\$4,195 (526)	\$4,111 (1,334)	\$2,340 (313)	\$2,479 (1,309)

*The number in parenthesis under each salary indicates the number of cases on which the median salary is based.

The list of scholars selected for each year from 1892-1893 through 1911-1912, as given in official University publications,¹

¹Report of the President and Annual Register of Students for the years mentioned.

was checked against the published list of holders of the Bachelor's degree from the University.¹ The names of all scholars who were awarded the Bachelor's degree from 1895-1896 through 1911-1912 were included in the study. This list of scholars who had been graduated from the Colleges of the University was then checked against the list of alumni of the Colleges of the University who are listed in Who's Who in America, as published in the January, 1931, issue of the University of Chicago Magazine.² For students other than scholars the procedure was similar, the published list of holders of the Bachelor's degree being checked against the graduates listed in Who's Who in America. Table LIII gives the summarized data of the study.

TABLE LIII
PERCENTAGES OF ALUMNI WHO HELD UNDERGRADUATE SCHOLARSHIPS AND
PERCENTAGES OF OTHER ALUMNI WHO ARE LISTED
IN WHO'S WHO IN AMERICA, 1930-1931

	Bachelor's Degrees Awarded to		Number Listed in <u>Who's Who in America</u>		Percentage of Holders of Bachelor's Degrees Listed in <u>Who's Who in America</u>	
	Scholars	Other Students	Scholars	Other Students	Scholars	Other Students
1896-1902	106	1,097	9	84	8.49	7.66
1903-1908	173	1,661	11	81	6.36	4.88
1909-1912	159	1,333	6	32	3.77	2.40
Total..	438	4,091	26	197	5.94	4.82

For each period given in the table the percentage of scholars holding the Bachelor's degree who are listed in Who's Who in America is considerably larger than the corresponding figure for

¹The Alumni Directory. Chicago: The University of Chicago Press, 1919.

²The University of Chicago Magazine, Vol. XXIII, No. 3 (January, 1931), pp. 147-52.

students other than scholars. For the first period shown in Table LIII the percentage for scholars is 10.8 per cent larger than the figure for other students, while for the following two periods the percentages for scholars exceed those for non-scholars by 30.3 and 57.1 per cent, respectively. For the entire period shown in the table the percentage of scholars listed in Who's Who in America is 23.2 per cent larger than for all other students.

Listing in American Men of Science

The second measure used in the attempt to evaluate the success of University Fellows is limited to those receiving the Ph.D. degree from the Divisions of the Biological and the Physical Sciences. For this group a careful check was made of the 1927 edition of American Men of Science.¹ The names of all scientists who listed attendance at the University of Chicago were recorded on tabulating cards. These cards were checked against the published Register of Doctors of Philosophy of the University and the list of University Fellows secured from official publications of the University. In order to make a comparison of students who held University fellowships and received the doctorate with other students who likewise received the Ph.D. degree, these two groups are kept separate throughout the course of the study.

Approximately 1,000 persons are designated as "starred scientists"; these are, presumably, the outstanding men in the various fields of learning included in the work. A detailed description of the technique used in selecting these names is given in an appendix of the 1927 edition of American Men of Science.

The data based on all students who received the Ph.D. degree from the University in the Divisions of the Biological and the Physical Sciences, including those who were awarded University fellowships, are presented in Tables LIV and LV. Over the thirty-five year period, 72.8 per cent of University fellows who have received the Ph.D. degree in the Division of the Biological Sciences are listed in American Men of Science, while the corresponding figure for other students is 64.3; in the Division of the Physical Sciences the figures are 73.0 per cent and 64.1 per cent, respectively.

¹J. McKeen Cattell and Jacques Cattell, American Men of Science. New York: Science Press, 1927.

TABLE LIV

PERCENTAGE OF UNIVERSITY FELLOWS AND PERCENTAGE OF OTHER STUDENTS, GRANTED THE PH.D. DEGREE IN THE DIVISIONS OF THE BIOLOGICAL AND THE PHYSICAL SCIENCES, WHO ARE LISTED IN AMERICAN MEN OF SCIENCE

Division and Department	Percentage of Ph.D. Degree Holders of Each Period									
	1893-1902		1903-1912		1913-1922		1923-1927		Total	
	University Fellows	Others	University Fellows	Others	University Fellows	Others	University Fellows	Others	University Fellows	Others
Biological Sciences:										
Anatomy	100	..	57	50	67	71	25	33	56.3	53.3
Botany	80	100	83	52	93	75	30	58	81.3	83.3
Home Economics	..	..	0	..	50	100	0	43	16.7	55.6
Hygiene and Bacteriology	0	..	100	75	100	83	0	55	60.0	70.4
Pathology	..	..	50	100	50	83	..	40	50.0	72.2
Physiology	60	0	100	100	88	73	0	38	75.0	57.6
Physiological Chemistry	..	..	100	100	75	100	20	17	54.6	66.7
Psychology	..	..	72	100	80	83	40	21	72.1	48.4
Zoology	88	67	75	92	100	88	29	67	79.2	82.8
Total	78	75	76	77	86	79	25	43	72.8	64.3
Physical Sciences:										
Astronomy	..	..	83	0	70	100	50	50	72.2	70.0
Chemistry	73	75	82	68	78	77	23	45	68.1	63.4
Geology and Paleontology	90	..	92	100	86	90	71	38	84.6	66.7
Mathematics	100	100	83	91	82	64	39	52	75.3	65.5
Physics	67	100	77	90	83	68	25	37	64.4	61.5
Total	84	83	83	79	81	74	39	44	73.0	64.1
Grand total	81	80	80	78	83	76	34	44	72.9	64.2

TABLE LV

PERCENTAGE OF UNIVERSITY FELLOWS AND PERCENTAGE OF OTHER STUDENTS, GRANTED THE PH.D. DEGREE IN THE DIVISIONS OF THE BIOLOGICAL AND THE PHYSICAL SCIENCES, WHO ARE LISTED AS STARRED SCIENTISTS IN AMERICAN MEN OF SCIENCE

Division and Department	Percentage of Ph.D. Degree Holders of Each Period							
	1893-1902		1903-1912		1913-1922		Total	
	University Fellows	Others	University Fellows	Others	University Fellows	Others	University Fellows	Others
Biological Sciences:								
Anatomy	50	..	50	0	0	9	37.5	0.0
Botany	50	75	13	9	5	0	12.9	9.5
Home Economics	..	..	..	..	0	0	0.0	0.0
Hygiene and Bacteriology	..	..	0	0	0	0	0.0	0.0
Pathology	..	..	0	17	0	0	0.0	9.1
Physiology	33	..	20	80	0	13	16.7	38.5
Physiological Chemistry	..	..	0	0	0	0	0.0	0.0
Psychology	..	..	31	25	0	14	13.8	18.2
Zoology	67	50	44	64	8	43	41.7	55.0
Total	55	67	25	33	4	7	20.0	18.5
Physical Sciences:								
Astronomy	..	100	40	0	29	25	33.3	40.0
Chemistry	63	50	22	13	3	0	17.2	7.9
Geology and Paleontology	44	..	36	25	12	0	24.4	7.7
Mathematics	50	50	32	20	7	0	22.8	11.5
Physics	100	0	30	22	5	0	23.5	8.0
Total	58	50	30	18	8	1	22.3	10.0
Grand total	57	56	28	26	6	4	21.3	14.1

* No students who received the Ph.D. degree in the period 1923-1927 are designated as "starred scientists."

A few departments over a period of years have succeeded in selecting University fellows who have been noticeably more successful, as far as the criterion being used is considered, than have the other students who have received the Ph.D. degree. The tendency in the most recent period shown in Table LV is for larger percentages of students who received the Ph.D. degree and did not hold University fellowships to have achieved recognition in American Men of Science than for those who were selected as University fellows.

When the percentages of graduates holding the Ph.D. degree from the University whose names appear in American Men of Science and who are also designated as "starred scientists" are compared for University fellows and for other students, the former group still maintains a somewhat higher relative rank. In the Division of the Biological Sciences the percentage for University fellows is 20.0, while for the other students the corresponding figure is 18.5; in the Division of the Physical Sciences the figures are 22.3 and 10.0, respectively. When the grand total of University fellows for the two divisions is compared with the percentage for other students, it will be observed that 21.3 per cent of the University fellows who received the doctorate between 1893 and 1922 and who are listed in American Men of Science are designated as "starred scientists," while for other students the corresponding percentage is 14.1.

Summary

Comparison of the achievement after graduation of scholars and non-scholars who have received the Bachelor's degree shows that in the amount of additional schooling, the number of earned degrees, and in listing in Who's Who in America, the former group is superior to the latter. The 1930 median salaries of the two groups vary only slightly. However, in comparison with non-scholars, there is a tendency for male scholars to receive larger median salaries in the early years after graduation (up to about ten years) and smaller remuneration in late years (twenty or more). For women this trend is precisely the reverse.

Comparison between students who have received the Ph.D. degree in the Divisions of the Biological and the Physical Sciences by the end of 1926-1927 shows that the percentage of

University fellows who are listed in American Men of Science is significantly higher than the corresponding percentage of other students. Likewise, the proportion of fellows who are starred scientists is greater than for the group of non-fellows.

CHAPTER VIII

LOAN FUNDS

Administration of Funds

The administration of the student loan funds of the University of Chicago is under the direction of the Cashier;¹ an assistant is responsible for the routine duties in handling the loans.² An efficient clerical force with adequate facilities for conducting business of this sort is provided in the general suite of offices, where all financial transactions with students are carried on.

Students applying for loans for the first time fill out an extensive application blank. Among the items of information requested are: amount and period of the loan desired, rate of interest, Chicago and home address of the applicant, number of dependents, the occupation of father, classification of the student in the University, number of quarters in residence, present financial condition, amount of remunerative work, previous loans, and other items. The form also carries space for a statement from the Bureau of Records regarding the scholastic standing of the student, with space for the approval of the Dean of the student making the application for the loan.

The application form states that a period of two weeks is required between the filing of an application and final decision thereon. In practice, however, the Cashier states that from one to two days is sufficient time for checking the great majority of applications. The periods for which the most of the notes run are, in general, short. Students who are far along toward completion of degree requirements are preferred, as loans frequently enable them to continue residence at the University and be graduated.

¹The title of the office was changed in 1931 to Bursar.

²Since these data were collected, the procedure in applying for a loan has been slightly modified; application for a loan is made directly to the dean of the classification in which the student is registered. See Appendix B for the application form.

Rates of interest vary somewhat, depending on the financial condition of the student, as reflected by the application form and the stipulations of the specific fund from which the loan is made. The interest rates vary from nothing to as high as 6 per cent. Loans are not intended to finance students through entire college or graduate courses. The function of student loans is primarily that of relieving relatively temporary financial stringencies.¹ Amounts of individual loans therefore tend to be rather small, averaging less than the quarterly tuition charges. Loans of five hundred dollars or more are very unusual.

Students are notified of the approaching maturity of notes approximately two weeks in advance, by means of a personal letter signed by the Cashier or his assistant. Prompt and business-like attention to financial obligations is stressed in correspondence and interviews with students.

When loans are granted, vouchers are drawn in favor of the applicant, the voucher indicating the specific fund from which the loan is made. The form of the note is simple, and requires only the signature of the student. No security is required of the student by the University.

Increase of Funds

The Students' Fund Society, established in 1894 through the initiative of Dean Alice Freeman Palmer, was the first fund designated especially for loans to students of the University. The funds were administered separately from those of the University, however, until 1930. The Foreman Fund, given to the University in 1902 for loans to graduate and undergraduate students, was the first of the gifts bearing the name of the donor. The Rosenthal Fund, designated for the use of law students, was begun the following year. For more than a decade no new loan funds were given to the University. By the end of the academic year 1920-1921 the total amount of loan funds on hand was only \$5,498.49.

¹Since the data of this chapter were gathered provision has been made for tuition loans for periods of one year, but renewable each year for four years.

The amount available for loans, the number of loans, and amount of money lent are shown in Table LVI for each year of the ten-year period ending with June 30, 1930.

TABLE LVI
AMOUNT OF STUDENT LOAN FUNDS, NUMBER OF LOANS MADE,
AND AMOUNT LENT FOR EACH FISCAL YEAR,
1920-1921 THROUGH 1929-1930

Fiscal Year Ending June 30	Amount of Funds*	Number of Loans Made	Amount Lent
1921.....	\$ 5,498.49	95	\$ 6,250.00
1922.....	8,309.28	95	5,401.00
1923.....	13,856.07	162	9,832.00
1924.....	19,635.95	153	11,818.50
1925.....	24,321.36	200	13,575.00
1926.....	27,246.99	213	14,404.13
1927.....	53,684.31	276	20,184.89
1928.....	66,762.39**	314	26,602.39
1929.....	63,925.41**	376	29,915.59
1930.....	72,961.31**	642	58,904.37

*The assets of the Students' Fund Society are not included.

**Includes the Chicago Alumni Club fund of approximately \$3,000. The Cashier is Secretary-Treasurer of the fund. Loans average thirty each year.

For the last three years shown in the table funds amounting to about \$3,000 in the name of the Loan Fund of the Chicago Alumni Club are included as University funds. This Fund, although not formally turned over to the University, is administered by the Cashier of the University, who is also Secretary-Treasurer of the Chicago Alumni Club.

The amount of loan funds available increased 1,227 per cent for the ten-year period. The amount of funds shows an increase each year, except for 1928-1929, when the transfer of the T. W. Goodspeed Fund of \$5,000 from loan to scholarship funds was responsible for the reduction in the total amount of funds. This decrease, however, was partly offset by addition to the funds from other sources.

During the ten-year period under discussion the number of loans made increased 575.8 per cent, while the amount lent increased 842.5 per cent. The increase in total amount of loan

funds, number of loans made, and amount lent over the ten-year period is more significant in comparison with the increase in the number of students to be served. For this purpose the figure for the number of students to be served is computed as the average enrolment per quarter for the entire University.

Table LVII presents for each year from 1920-1921 through 1929-1930 the average enrolment per quarter and the percentages of increase which the average enrolment per quarter, the total amount of loan funds, the number of loans, and the amount lent are of their respective bases for 1920-1921. Data for enrolments are taken from the published reports of the Recorder, and for loan funds from a report of the Cashier to the Vice-President and Business Manager.

TABLE LVII

AVERAGE ENROLMENT PER QUARTER; AND PERCENTAGES OF INCREASE IN AVERAGE ENROLMENT PER QUARTER, NUMBER OF LOANS, AMOUNT LENT, AND AMOUNT OF LOAN FUNDS OVER THEIR RESPECTIVE BASES FOR 1920-1921

Year	Average Enrolment per Quarter	Percentage Increase of 1920-21 in			
		Average Enrolment	Number of Loans	Amount Lent	Amount of Loan Funds
1920-1921..	5,856.25	..	..	..	..
1921-1922..	6,325.50	8.01	0.00	13.58*	51.12
1922-1923..	6,578.00	12.32	68.42	57.31	152.00
1923-1924..	6,804.50	16.19	61.05	89.10	257.12
1924-1925..	7,205.25	23.04	110.53	117.20	342.33
1925-1926..	7,514.75	28.32	124.21	130.47	395.54
1926-1927..	7,549.00	28.91	190.53	222.95	876.35
1927-1928..	7,646.00	30.56	230.53	325.64	1,114.19
1928-1929..	7,652.00	30.66	295.79	378.65	1,062.60
1929-1930..	7,542.75	28.80	575.80	842.47	1,226.93

*Decrease.

This table shows that the average enrolment per quarter has increased 28.80 per cent over the ten-year period for which data are presented. The only decrease in the average enrolment is for the year 1929-1930, the last for which data are presented. The percentages of increase in the number of loans, the amount lent, and the total loan funds are much larger than the

corresponding increases in the total number of students to be served. Obviously, the University has greatly strengthened its facilities for student loans over what was available in 1920-1921.

Percentage of Funds Lent

The loan funds of the University are of the revolving type, except for a small portion of one fund; that is, the full amount of the principal is available for loans. Table LVIII shows the percentage of the total loan fund lent during each year, and the division of the funds between notes receivable and cash. In each case the data are based upon the financial condition of the fund on June 30, the end of the fiscal year.

TABLE LVIII

PERCENTAGE OF TOTAL LOAN FUND LENT DURING EACH FISCAL
YEAR AND PERCENTAGE OF TOTAL FUND IN NOTES
RECEIVABLE AND IN CASH,
1920-21 THROUGH 1929-30

Fiscal Year Ending June 30	Percentage of Total Fund Lent during Year	Percentage of Total Fund at the End of the Fiscal Year in	
		Notes Receivable	Cash
1921.....	113.4	82.1	17.9
1922.....	64.9	61.7	38.3
1923.....	70.9	67.1	32.9
1924.....	60.2	66.5	33.5
1925.....	55.8	73.9	26.1
1926.....	52.8	73.8	26.2
1927.....	37.6	47.1	52.9
1928.....	39.8	52.9	47.1
1929.....	46.7	72.2	27.8
1930.....	80.7	87.2	12.8
Median.....	58.0	69.7	30.4

The percentage of the total fund which was lent each year is highest for the first year shown, when the amount of loans was larger than the principal of the fund. The general trend from 1921 through 1927 was toward decreasing percentages of the total fund lent during each year; or, in other words, toward relatively slower turnover of the funds. After 1927, however, this trend was reversed, and the loan fund was more active in the final year

than in any previous one shown in the table, with the exception of the first year. The combination of a revolving type of fund and short term notes makes it possible to maintain a highly active fund. If notes are repaid promptly the temporary needs of a large number of persons may be met.

There was a large increase in the amount of funds available for loan near the close of the fiscal year ending in 1927 (see Table LVI). This increase was larger than the demand for loans, so that at the end of this fiscal year the percentage of the total fund lent was only 37.6. For the two years following 1928 the proportion of the total fund lent during each year increased rapidly.

Another indication of the demands made on the loan funds is the percentage of the total fund in notes receivable. This percentage shows no definite trend until 1927; after that year it increases steadily.

The amounts of cash on hand for the ten years range from \$981.00 on June 30, 1921 to \$31,444.69 on June 30, 1928. Since the latter date the amounts of cash at the end of the fiscal years decrease steadily, the amount being \$9,342.99 at the end of 1929-1930. Since the applications for loans are normally largest in the Spring Quarter, it is apparent from the amounts of cash on hand on June 30, that the funds were not used to their maximum capacity for loans during the year 1920-1921 through 1929-1930. The percentage of the fund in cash, however, is smallest for the last year shown. The cash balances are a part of the general University bank balances, and earn interest at a low rate. No charge is made against the loan funds for administration, and the interest on cash balances is not credited to the principal of the loan funds.

Classification of Students Served

While loan funds are designated for students of a large number of specific classifications, the amount of unrestricted funds is large enough so that students of each classification in the University have the advantages of the loan funds. In recent years funds have also been added to serve the emergency needs of employees of the University, and of members of the faculty.

Table LIX indicates for the three fiscal years, 1927-1928 through 1929-1930, the percentages of the total amount of loans

for each year borrowed by students of each classification, as well as employees and members of the faculty of the University.

TABLE LIX
PERCENTAGE OF TOTAL AMOUNT OF LOANS TO EACH
CLASSIFICATION, 1927-1928 THROUGH
1929-1930

Classification	Percentages for Fiscal Years Ending June 30		
	1928	1929	1930
Undergraduate, Arts, Literature, and Science...	28.76	36.24	32.84
Graduate, Arts, Literature, and Science.....	25.58	27.76	22.87
Divinity School.....	3.20	6.84	3.98
Law School.....	21.47	10.17	7.00
School of Business.....	13.92	8.87	5.10
School of Social Service Administration.....	1.26	1.64	4.39
Rush Medical College.....	1.50	2.74	7.75
Medical School of the Division of the Biological Sciences.....	4.13	3.72	3.14
Home-Study and University College.....	0.00	0.43	0.35
Graduate Library School.....	..	0.00	0.49
Employees of University.....	0.17	1.59	3.59
Faculty.....	0.00	0.00	8.51

Students in the Colleges of Arts, Literature, and Science borrowed the largest amounts of money from the loan funds of the University for the three years given, the percentages ranging from 28.76 to 36.24 of the total amounts of loans. Students in the Graduate Schools of Arts, Literature, and Science rank second in the percentages of the total fund borrowed for each of the three years. Students of other classifications in the University which rank next in order in proportion to the total amount of funds borrowed are the Law School, the School of Business, and the Medical Schools (Rush and the Division of the Biological Sciences). Employees of the University and members of the faculty combined borrow slightly more than 12 per cent of the amount of loans for the year 1929-1930.

The data of Table LIX take no account of the relative enrolments of the various Schools and Colleges of the University. If the amounts of loans to persons in each classification are divided by the corresponding enrolments the figures will be

comparable for all the Schools and Colleges. The enrolments used for computing the average amounts of loans shown in Table LX are the average enrolments per quarter. For three groups--Home Study and University College, employees, and members of the faculty--averages based on enrolment are not shown.

Students in the professional schools are, in proportion to their numbers, the heaviest borrowers from the loan funds of the University. Students in the School of Business lead in this respect, and the Colleges and Graduate Schools of Arts, Literature, and Science rank low.

Amounts of Loans by Quarters

Variations in the amount and number of loans for the four quarters of the academic year are shown for the years 1928-1929 and 1929-1930 in Table LXI. Although the enrolment in the University is larger during the Summer Quarter than during any other quarter, the number of loans made and the total amount of loans are smaller during the Summer Quarter than during any of the other periods of the school year. Table LXI indicates that both the number of loans and the total amount lent, beginning with the Summer Quarter, tend to increase through each of the following three quarters. The average amount per loan shows no such regular trend over the corresponding periods. The increases in the number of loans and the total amount of loans as the academic year progresses are doubtless explained by the fact that many students are employed during the Summer Quarter and come back to the University in the Autumn Quarter with funds which gradually decrease toward the end of the academic year.

The mean amount lent for each of the quarters is somewhat below the tuition charge of \$100 per quarter in the Colleges of Arts, Literature, and Science, the Law School, the School of Business, and the Medical Schools, for the periods given in the table. For the same periods the quarterly tuition was \$70 in the Graduate Schools of Arts, Literature, and Science, the Divinity School, the School of Social Service Administration, and the Graduate Library School.

Notes Receivable

It was pointed out earlier in this chapter that the ratio of notes receivable to total amount of loan funds has been held at

TABLE IX

TOTAL AMOUNTS OF LOANS AND AMOUNTS PER STUDENT PER QUARTER FROM THE LOAN FUNDS
OF THE UNIVERSITY FOR VARIOUS CLASSIFICATIONS, 1927-1928 THROUGH 1929-1930

Classification	1927-1928		1928-1929		1929-1930		Total
	Total for Year	Per Student per Quarter	Total for Year	Per Student per Quarter	Total for Year	Per Student per Quarter	Per Student per Quarter
School of Business	\$ 3,704.00	\$3.82	\$ 2,653.35	\$3.04	\$ 3,001.67	\$3.55	\$3.49
Graduate Library School	..	..	0.00	..	290.00	5.18	3.41
Law School	5,712.68	4.01	3,041.00	2.06	4,121.84	2.74	2.92
School of Social Service							
Administration	336.00	0.73	490.00	1.02	2,585.00	4.81	2.30
Rush Medical College	400.00	0.36	820.00	0.78	4,566.00	4.60	1.84
Medical School of the Division of the							
Biological Sciences	1,098.89	1.31	1,114.33	1.35	1,848.33	2.20	1.62
Divinity School	852.00	0.65	2,045.00	1.57	2,345.00	2.06	1.40
Undergraduate, Arts, Literature, and Science ...	7,652.16	0.77	10,840.90	1.12	19,344.70	2.17	1.32
Graduate, Arts, Literature, and Science	6,801.66	0.92	8,306.01	1.11	13,473.33	1.71	1.25
Home Study and University College	0.00	..	130.00	..	205.00	..	..
Employees of University	45.00	..	475.00	..	2,112.50	..	..
Faculty	0.00	..	0.00	..	5,011.00	..	..
Total	\$26,602.39	\$1.13*	\$29,915.59	\$1.26	\$58,904.37	\$2.27	\$1.56

*The amount lent to students in University College and the Home Study Department, and to employees and members of the faculty, are not included.

TABLE LXI

TOTAL AMOUNT OF LOANS AND NUMBER OF LOANS
BY QUARTERS, 1928-1929 AND 1929-1930

Quarter	Total Amount of Loans	Number of Loans	Average Amount per Loan	Percentage of	
				Number of Loans Each Year	Amount of Loans Each Year
Summer, 1928..	\$ 4,885.84	51	\$95.80	13.6	16.33
Autumn, 1928..	6,243.01	99	63.06	26.3	20.87
Winter, 1929..	8,802.50	97	90.75	25.8	29.42
Spring, 1929..	9,984.25	129	77.40	34.3	33.37
Summer, 1929..	5,916.51	65	91.02	10.1	10.04
Autumn, 1929..	13,791.84	157	87.85	24.5	23.41
Winter, 1930..	16,308.85	185	88.16	28.8	27.69
Spring, 1930..	22,887.17	235	97.39	36.6	38.85

a relatively high level in the administration of student loan funds of the University. For the fiscal year ending June 30, 1930, the percentage of the total funds in the form of notes receivable is 87.2. Table LXII gives an analysis of the notes receivable at the end of the fiscal year 1929-1930 according to the dates of approaching maturity. Notes which are past due are also included in this table.

Of the total of \$63,618.32 in notes receivable on June 30, 1930, 14.13 per cent is past due. The 553 notes receivable but not yet due range in time of approaching maturity from one month to eight years. The median time of maturity of notes not yet due is approximately four months (3.96). Forty-seven, or 8.5 per cent, of the total notes receivable but not yet due range in periods of approaching maturity from thirteen months to eight years.

Notes past due.--One hundred thirty-three notes, totaling \$8,986.41 and representing 14.13 per cent of the amount of notes receivable, are past due. A further analysis of these past due notes is given in Table LXIII.

Of the total notes past due in the student loan funds of the University, 24.8 per cent are past due two months or less, the remainder of the notes being past due for periods up to ten years. Of the amount of past due notes, \$2,318.18 is loans which were past due when turned over to the University by the Students'

TABLE LXII
ANALYSIS OF NOTES RECEIVABLE ON JUNE 30, 1930

Notes Due within Each Period after June 30, 1930	Number of Notes	Amount of Notes	Percentage of	
			Total Number of Notes	Total Amount of Notes
1 month	82	\$ 6,291.33	12.0	9.89
2 months	69	5,276.32	10.1	8.29
3 months	91	8,210.89	13.3	12.91
4 months	36	3,236.49	5.2	5.09
5 months	46	4,211.67	6.7	6.62
6 months	57	5,128.72	8.3	8.06
7 months	20	1,765.00	2.9	2.77
8 months	25	2,528.83	3.6	3.98
9 months	21	2,175.00	3.1	3.42
10 months	13	1,405.67	1.9	2.21
11 months	11	1,170.00	1.6	1.84
12 months	35	7,271.99	5.1	11.43
13 months	9	1,215.00	1.3	1.91
17 months	1	150.00	0.1	0.24
18 months	5	725.00	0.7	1.14
20 months	5	640.00	0.7	1.01
2 years	10	1,475.00	1.5	2.32
2½ years	3	550.00	0.4	0.86
3 years	3	350.00	0.4	0.55
3½ years	4	300.00	0.6	0.47
4 years	4	345.00	0.6	0.54
4½ years	1	100.00	0.1	0.16
6 years	1	60.00	0.1	0.09
8 years	1	50.00	0.1	0.08
Total notes not due	553	\$54,631.91	80.6	85.88
Notes past due.	133	8,986.41	19.4	14.13
Total notes receivable....	686	\$63,618.32	100.0	100.00

TABLE LXIII
NOTES PAST DUE ON JUNE 30, 1930

Period of Time Notes Are Past Due	Number of Notes	Amount of Notes	Percentage of	
			Total Number of Notes	Total Amount of Notes
1 month.....	21	\$1,174.92	15.8	13.07
2 months.....	12	830.40	9.0	9.24
5 months.....	12	814.33	9.0	9.06
6 months.....	4	266.50	3.0	2.97
9 months.....	1	50.00	0.8	0.56
1 year.....	14	699.83	10.5	7.79
1½ years.....	8	597.77	6.0	6.65
2 years.....	6	213.70	4.5	2.38
2½ years.....	3	180.00	2.3	2.00
3 years.....	11	903.71	8.3	10.06
3½ years.....	2	160.00	1.5	1.78
4 years.....	14	1,066.19	10.5	11.36
5 years.....	9	520.63	6.8	5.79
6 years.....	5	518.36	3.8	5.77
7 years.....	5	525.00	3.8	5.84
8 years.....	4	417.50	3.0	4.65
9 years.....	1	17.57	0.8	0.20
10 years.....	1	30.00	0.8	0.33
Total.....	133	\$8,986.41	100.0	100.0

Fund Society. For the ten-year period covered by the fiscal year closing June 30, 1930, the total amount lent through University funds is \$196,887.87. The total of notes past due on June 30, 1930, represents 4.56 per cent of the total amount of loans during the ten-year period. The percentage of total loans during the ten-year period which are past due more than one month is 3.97 per cent. Loans are not written off as worthless unless they are past due for more than ten years and no payment of principal or interest has been made during that time.

In Table LXIV loans past due for more than one month on June 30, 1930, are classified according to the name of the fund. The percentage of total receivables of each fund which is past due more than one month is also given. Of the total amounts past due more than one month, the largest single amount is credited to general funds, which are not restricted to use by students of

TABLE LXIV

AMOUNTS AND PERCENTAGES OF NOTES PAST DUE MORE THAN ONE MONTH ON JUNE 30, 1930, CLASSIFIED BY FUNDS

Name of Fund*	Amount of Notes Past Due More Than One Month (As of June 30, 1930)		Percentage of Receivables in Each Fund Past Due More Than One Month (As of June 30, 1930)	
Law School.....		\$2,075.04		35.79
Rosenthal.....	\$ 360.29		53.35	
Hall.....	1,254.69		34.19	
Mechem.....	275.00		21.70	
Whittier.....	185.06		100.00	
Divinity-Parker.....		217.20		35.73
Students' Fund Society.....		2,318.18		16.48
School of Business...		625.58		13.10
General Funds.....		2,473.49		11.27
General.....	1,083.16		13.79	
Foreman.....	376.30		16.21	
Class of '14.....	370.00		14.11	
Senior.....	50.00		3.33	
M. Green.....	93.32		3.54	
Kiwanis.....	190.00		14.16	
Alumni.....	260.71		8.35	
Class of '21.....	50.00		9.07	
Emergency.....		75.00		7.05
Total.....		\$7,811.49		13.30

*Funds listed under the name of a School, as Law, Divinity, and Business, are restricted to loans to students of that classification.

specific classifications; however, the total of \$2,473.49 which is past due for more than one month represents only 11.27 per cent of the total receivables in the general funds. The next largest amount of notes past due more than one month is that of the Students' Fund Society, the greater part of which was in the form of notes past due when turned over to the University. The total past due in this fund represents 16.48 per cent of the total receivables of the Fund.

Of the funds designated to specific Schools, those of the Law School show both the largest total amount of funds past due for more than a month and the largest percentage of total receivables past due. In one small fund, the Whittier, the entire principal of the fund is past due for more than one month. Of the Parker Fund for Divinity students, 35.73 per cent of the total receivables is in the form of notes past due for more than one month.

It should be noted that the funds shown in Table LXIV, which are restricted to students of specific classifications, and in some cases where responsibility for selecting the risks is shared by other persons than the Cashier, tend to have larger percentages of their total notes receivable in notes past due for more than one month than the general unrestricted funds do.

A study of a loan fund administered for a group of denominational colleges showed that 57.8 per cent of the amount of loans outstanding became overdue.¹ Ogan estimated that 15 per cent of the amounts lent were never repaid.²

The experience of the Division of Student Loans of the Harmon Foundation offers interesting comparison in the matter of delinquent loans. A full description of the methods of the Division of Student Loans is given by Chassee.³ The loans are for relatively long periods, repayment being in installments beginning the first year out of college. In the first seven

¹Ralph Wilson Ogan, "The Administration of the Rotary Loan Program of the Board of Christian Education of the Presbyterian Church in the U.S.A.," p. 261-A. Unpublished Doctor's dissertation, Ohio State University, 1930.

²Ibid., p. 271.

³L. J. Chassee, A Study of Student Loans and Their Relation to Higher Educational Finance. New York: Harmon Foundation, 1925.

years the "Foundation has learned that losses doubtful of collection have averaged less than 2 per cent."¹ A total of \$538,220 was lent but less than one-half of the amount had come due at the time of the report.² Delinquent sums, however, were exceeded by anticipations in payment. Teachers "are usually the ones who make advance payments," while "doctors, dentists, lawyers and ministerial students frequently get far behind in the payment of their loans."³ It has been the experience of the Foundation that careful selection of risks is the first essential to the successful operation of long-term loans without security.

Collection of past-due notes.--The Cashier has had unusual success in collecting the past-due accounts of a number of funds which were turned over to him for administration with University student-loan funds. As a representative of the Students' Fund Society, the Cashier took over the administration of the Society's loan fund one year before the fund was turned over to the University. In that time he succeeded in collecting about \$5,000 on old notes of the Society, some of which had been outstanding as long as thirty years. In addition to \$14,192.50 turned over to the University by the Students' Fund Society in cash, security, and student notes, there was \$8,987.50 in student-loan notes so old as to be considered worthless. Of this amount \$1,045.55 had been collected at the close of the fiscal year 1929-1930, the amount so collected being added to the loan fund.

A further evidence of the success of the Cashier's Office in collecting past due notes is illustrated in a number of old notes turned over by the Divinity School in 1928. These notes had been taken by the Divinity School, in lieu of tuition, from students who were to take up the notes within four or five years provided the makers did not go to the foreign mission field. Most of the notes were signed before the World War and bore no addresses. To date the Cashier has collected \$3,115 of these notes in cases of those makers who did not serve in the foreign mission field, the amount collected having been credited to Divinity

¹Seven Years Experience with Student Loans, p. 5.
New York: Harmon Foundation, 1929.

²Ibid., p. 20.

³Ibid., p. 22.

tuition remission. Service in foreign mission fields has been verified for many others, thus closing the record of such notes.

The centralization of the administration of the loan funds in the office of the Cashier has aided materially in handling the funds in an efficient business manner. All information regarding applicants for loans is gathered in the same office and by the same officers who must approve the loans and make final collection. It is reported by the Cashier that lack of essential information is the difficulty in the collection of many of the notes which are long past due and that a decrease in the number of past due notes is to be expected.

Student Opinion Regarding Loan Funds

The officer in charge of student loan funds is easily available to students for conferences, not only regarding the desirability of making loans from University funds, but to give advice regarding financial difficulties. Many students come to talk over their financial problems and others are sent by deans or other advisory officers. A part of the value of college or university education should be the acquiring of intelligent attitudes and habits regarding the use of money. It seems likely that the office of the Cashier is rendering not only an important financial service to students but a valuable educational service as well.

Data have been presented in this chapter showing that the percentage increase in student borrowers has been considerably larger than the corresponding increase in enrolments. It has also been pointed out in a previous chapter that in the award of honor and endowed scholarships in the Colleges, financial need is one of the factors taken into consideration in making the awards. It therefore seems likely that a number of the more capable entering students are among the group who will later require additional financial assistance of some type, possibly from University loan funds.

Students holding endowed and honor scholarships in the Colleges during the Winter Quarter of 1931 were asked to state if a loan "repayable after leaving the University would be a satisfactory way of helping to pay the cost of education at the University of Chicago." Two hundred thirty students answered the

question, a number writing in some detail reasons why a loan would or would not be desirable for them.

Table LXV gives the percentages of men and women in each class who reply that a loan would be a satisfactory way of helping to pay the cost of education. It should be borne in mind in interpreting the table that answers are largely personal opinions depending on whether or not the student has a financial difficulty which would be ameliorated by the use of a loan from University funds.

TABLE LXV
PERCENTAGES OF UNDERGRADUATE SCHOLARS WHO SAY THAT
A LOAN, REPAYABLE AFTER LEAVING THE UNIVERSITY,
WOULD BE A SATISFACTORY WAY OF HELPING TO PAY
THE COST OF EDUCATION

Class	Percentages of		
	Men	Women	Total
Freshman.....	52.8	42.3	49.4
Sophomore.....	47.4	26.7	43.1
Junior.....	58.3	35.7	50.0
Senior.....	56.5	55.6	56.1
Total.....	52.2	41.1	48.7
Number reporting.	157	73	230

Fifty-two and two-tenths per cent of all the men replying indicate that a loan would be a satisfactory method of helping to finance the cost of education at the University, while 41.1 per cent of the women give a similar reply. Upon the average, freshman scholars seem more willing to make use of loan funds than members of the sophomore class do. Members of the junior and senior classes are slightly more favorable than either freshmen or sophomores to the use of loans as a method of meeting University expenses.

Comments of undergraduate students holding scholarships regarding the desirability of student loan funds are in many cases enlightening in so far as they reflect general attitudes

toward the value of college education, and the peculiar financial problems of the individual students. Statements from students to the effect that they had no fear of being unable to repay loans after leaving college are in some cases supported by statements of earnings already made, both in and out of residence at the University. A considerable number, however, express reluctance at making financial commitments for future years when there is no certainty that these obligations can be later discharged.

A number of women bring out the significant point that the necessity of repaying a debt of any considerable amount at the end of the college period tends to postpone marriage unduly. A further significant number of students reply that they are not interested in loans as a method of helping to finance college education because their parents are able to pay the cost, or that part-time work, in addition to assistance from parents, is sufficient to meet University expenses. Considering the many personal factors involved and the fact that the question is answered by some students who have no financial difficulties, the attitude of scholarship holders is in general rather favorable to the use of loan funds as a supplement to other methods of meeting University expenses.

Similar data from graduate students holding scholarships, fellowships, and student assistantships during the Winter Quarter of 1931 are presented in Table LXVI. This table shows that 44.8 per cent of 239 graduate students holding scholarships, fellowships, and assistantships during the Winter Quarter of 1931 favor loans as a method of helping to pay the expenses of residence at the University. Men are slightly less favorable toward loans than women are. While only 30 per cent of student assistants are favorable to loans as a method of helping to finance the cost of University education, 52 per cent of the scholars and fellows report a favorable attitude toward loans.

It is of interest to note that undergraduate students receiving stipends from the University are more favorable toward loans as an aid to financing the cost of higher education than graduate students are. When the sex groups are considered the data show that women pursuing graduate study are slightly more favorable toward loans than undergraduate women are, while for men the reverse is true.

TABLE LXVI

PERCENTAGES OF GRADUATE SCHOLARS, FELLOWS, AND STUDENT ASSISTANTS WHO SAY THAT A LOAN, REPAYABLE AFTER LEAVING THE UNIVERSITY, WOULD BE A SATISFACTORY WAY OF HELPING TO PAY THE COST OF EDUCATION

	Percentage of		
	Men	Women	Total
Assistants.....	31.8	23.5	30.0
Scholars.....	43.6	68.2	52.5
Fellows.....	54.8	44.0	52.0
Total.....	44.0	46.9	44.8
Number reporting..	175	64	239

Co-ordination of Loans and Other Forms of Aid

A few cases of students receiving aid from more than one type of fund were found for the year 1930-1931. These may be accounted for within the existing regulations, by students who received aid of different types in different quarters of the year. Forty-four cases of such duplication were found. In one case a student-assistant received special permission to hold a service scholarship at the same time.

Data on the sources of funds expended for University expenses by 241 undergraduate scholars show that only 12 of this number reported University loans as a source of funds. Members of the Freshman class do not report receiving funds from this source, although seven per cent of this group reported loans from other sources.

It has been pointed out that student loans are primarily for short terms, and students close to graduation are preferred. It has also been shown that the amounts of scholarship and fellowship stipends to both graduate and undergraduate students tend to be low, partly because of the reduction in amount of individual grants to provide for more students. The general policy is against a student receiving aid from more than one source within the University at one time, excluding, of course, part-time work.

The form filled out by applicants for loans does not request information regarding income from scholarships, fellowships, or assistantships. Fairly complete information regarding the financial resources of prospective applicants for student aid is not available in any one University office. There is little or no long-term planning of financial programs with students so as to bring the full resources of the University into play in working out the financial problems of especially capable but impecunious students.

Summary

Student loan funds of the University of Chicago are administered under the direction of the Cashier, with an assistant responsible for the routine duties in handling the loans.

In the ten-year period from July 1, 1920 to June 30, 1930, the total funds available have increased thirteen-fold, chiefly by gifts. The amount lent annually is nine times larger and the number of loans nearly seven times greater than it was a decade ago--greater than the corresponding increase in enrolment--while the amount in notes outstanding at the end of the fiscal year has increased approximately fourteen-fold.

Funds available were not used to their maximum capacity for loans during the years from 1920-1921 through 1929-1930, the median percentage of the total fund in the form of cash at the end of the fiscal year being 30.4 for the ten annual periods.

Loans are available for students of every division of the University, a number of funds being specifically designated for students of certain departments, professional schools, or other specific classifications. Students in the professional schools, in proportion to the average enrolment per quarter, borrow larger amounts of money than students in the Colleges and Graduate Schools of Arts, Literature, and Science do. The average amount lent per student tends to increase over the ten-year period, 1920-1930, in approximately the same degree as the tuition charges. The number of loans made tends to increase with each quarter of the academic year, beginning with the Summer Quarter.

The total of notes past due on June 30, 1930, represents 4.56 per cent of the total amount of loans during the preceding ten years. Much of the difficulty in closing past due accounts is due to the failure to secure adequate information from the

student at the time the application was made. This has been corrected in the present administration of the funds, practically none of the loans which have been made since the consolidation of the funds under the Cashier being written off as worthless.

Slightly less than one-half of the graduate and undergraduate students receiving scholarship and fellowship stipends from the University during a sample quarter report that they are favorable to the use of University loans repayable after graduation as a means of assisting in financing their educations. However, only 5 per cent of 241 undergraduate scholars reported University loans as a source of income. General University regulations discourage aid from more than one source at one time for a student, and limit loans primarily to short terms. These conditions make it difficult to put into effect any extensive coordination of all funds for student aid so as to work out long-term programs which will conserve to the University the excellent but impecunious students who might otherwise be forced out of residence by financial considerations.

CHAPTER IX

SUMMARY AND CONCLUSIONS

The University offers a wide range of types of financial assistance to students. Selection of persons to receive aid is made in a large number of different offices. There is no central office charged with the responsibility of gathering and recording complete information regarding the financial need and the suitability of the persons for the various types of aid offered. The Committee on Fellowships and Scholarships, and the Scholarship Committee in the Colleges, as their activities are conducted in the Colleges and Graduate Schools of Arts, Literature, and Science are the nearest approach to centralization of administration.

The rule of the University which states that, in general, the student is not allowed to receive assistance simultaneously from two or more sources within the University, and the lack of consolidated centralized administration, make it difficult for those in charge of administering the various forms of aid to bring the full resources of the institution to bear on the individual problems of capable but impecunious students. No provision is made for students planning with educational advisers a long-term program of financing that combines scholarships and fellowships, student loans, and part-time and summer employment. Greater degree of co-ordination and centralization would likely make possible an increased contribution to the aims and objectives of the University from the present expenditures for student aid.

Approximately one-fourth of all the students enrolled on the Quadrangles in 1930-1931 received financial assistance from the University. The range among the various University classifications in percentage of total enrolment receiving aid is from practically all students in the Divinity School to only one per cent in Rush Medical College. Similarly, the amounts per student aided vary greatly, ranging from \$1,014 in the Graduate Library School to \$104 in Rush Medical College.

Differences in purposes of aid account for much of the variation in size of grants. Stipends for the promotion of

research by students average \$748, while grants for the purpose of rewarding veterans of the World War and their descendants (by Noyes Scholarships) average \$72. While the average amounts of aid per student for purposes not concerned with academic excellence are relatively small, both the number of students aided and the total amount granted comprise more than one-half of the respective totals.

Approximately three-fourths of the funds expended for financial assistance to students in 1930-1931 came from the general budget income, and one-sixth from endowment especially designated for the purpose. The awards paid from special annual gifts average considerably larger amounts per student aided than similar awards provided for by funds from other sources.

Funds restricted to students in specific University classifications account for approximately one-half of the cases of aid and four-fifths of the total amount expended. Restricted funds provide larger stipends but the unduly large proportion of such funds adds to the difficulty of achieving a well-balanced program of financial aid.

In the Colleges of Arts, Literature, and Science the stipends awarded to scholars (exclusive of Noyes aid) in 1930-1931 ranged from approximately \$50 to \$300. Two awards were made for more than the latter figure. Awards to entering freshmen averaged \$244, while to other undergraduates the average per student aided was \$186. Pressure of applications has led to the practice of dividing awards into fractions of full tuition. In 1929-1930, 43 per cent of the scholarships to undergraduates (exclusive of Noyes awards) were for only one or two quarters. The two-year honor scholarship for entering students is the only award which has successfully resisted the pressure for reducing the amounts of the stipends so as to provide smaller grants for larger numbers of students.

In the Graduate Schools of Arts, Literature, and Science the stipends for scholarships and fellowships range from approximately \$50 to \$2,500. Slightly more than one-half of the awards to graduate students were for amounts of \$300 or less, 20 per cent were \$750 or more, and the average was \$506. Fellowships are awarded for three quarters, unless application is made for a shorter time, and average approximately \$750.

In view of the cost of residence at the University, the typical amount of stipends seems inadequate. No undergraduate scholarship pretends to pay much more than tuition charges, and the majority do not pay these fees in full. In 1930-1931 the undergraduate scholars estimated that their scholarships provided for 35 per cent of their University expenses; graduate scholars, 30 per cent; and fellows, 58 per cent. Of 141 fellows reporting, only 4 said that the stipends provided for all University expenses.

The inadequacy of the stipends is reflected in the amount of part-time work undertaken. In the Winter Quarter of 1931, when students reported, the percentages reporting remunerative employment were: undergraduate scholars, 66; graduate scholars, 49; and fellows, 14. Of those gainfully employed and reporting the amount of time, the average number of hours per week ranged from 8 for fellows to 18 for undergraduate scholars. Nine per cent of the latter group reported employment of forty hours or more per week.

In the Schools and Colleges of Arts, Literature, and Science, service in return for the grant is not required at the undergraduate level. Graduate Honor scholars do not render service, and in most cases holders of special fellowships have no service requirement. Holders of service scholarships, University fellowships and assistantships are required to give service, although the amount of time devoted varies greatly. The data indicate the desirability of dropping the requirement of service for graduate students holding scholarships and fellowships, and placing additional emphasis on the encouragement of research.

Each group of undergraduate scholarship-holders, with the exception of those receiving Noyes awards, ranks significantly above the typical level of scholarship, as measured by the grade-point average at graduation. Entering students selected to receive scholarships by competitive examinations rank above the other groups of students receiving scholarships as freshmen. Service scholars are only slightly superior to the unselected graduate student body. University and Special fellows, and Graduate Honor scholars rank highest in scholarship averages. Noyes scholars rank below the general levels of scholarship of both the undergraduate and graduate students.

More than 80 per cent of the undergraduate scholars took part in some form of activities during 1930-1931, and over one-fourth of the men participated in major athletic sports. From the

establishment of the University through the decade ending in 1930, scholars have led non-scholars in participation in practically every type of undergraduate activity. Scholars of the decade ending in 1930 outstripped the non-scholars in active participation in extra-curricular activities more than in any previous decade. In all types of undergraduate honors the group of scholars was far superior to the non-scholars.

In the measures of achievement after graduation for which data are presented--amount of schooling after graduation, additional degrees earned, and listing in Who's Who in America for 1930-1931--the group of scholars is, in general, superior to non-scholars. Similarly, of the students who received Ph.D. degrees in the Divisions of the Biological and the Physical Sciences the percentage listed in American Men of Science is larger for the group which held University fellowships than for other students.

More than one-half of the Ph.D. degrees conferred by the Graduate Schools of Arts, Literature, and Science by the end of 1926-1927 were awarded to students who had held University fellowships. Significant variations are revealed among the various departments in the percentage of University fellows selected who have received the doctorate. The skill with which the various schools and departments are able to select successful recipients of aid might well be one of the factors given consideration in determining the allocation of funds for financial assistance to students.

The administration of the loan funds of the University was consolidated in 1927, and their management has been extremely capable. A majority of the principal is in the form of revolving funds for relatively short periods (one year or less). During the decade ending in June, 1930, the principal of the loan funds increased thirteen-fold, largely by gifts. The funds were sufficient to meet practically all requests which came within the limits of the loan funds. In general, funds which are not restricted to students of a particular classification have the least delinquency in repayments, as indicated by the percentage of notes past due more than one month.

Only five per cent of the undergraduate scholars report loans from the University as a source of income. The number of students receiving financial aid of more than one type is almost negligible.

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APPENDIX A

Major Changes in the University between 1930-1931 and
1935-1936 Affecting the Administration of Financial
Assistance to Students

The organization of the University and the administration of financial assistance to students are discussed in the main body of this study as they existed in 1930-1931, when the data were gathered. Since that time the University has undergone extensive reorganization. The organization as it existed in 1935-1936 will be briefly described in this Appendix, and the most important changes made in the administration of financial assistance will be indicated.

It should be pointed out that the greatest changes in the administration of student aid resulting from the "new plan" revolve around three fundamental changes in the administration of the University. First, the centralization of administration which resulted in grouping the departments of the Colleges and Graduate Schools of Arts, Literature, and Science into the new College and the four Divisions. Second, the introduction of the College Certificate and the fundamental change in the requirements for the Bachelor's degree, including the substitution of comprehensive examinations administered by the Board of Examiners for course grades assigned by instructors as a basis for the award of the College Certificate and the Bachelor's degree. Third, the creation of the office of Dean of Students in the University.

Instructional Organization

The departments of the University which offer instruction include: (1) In arts, literature, and science--the College and the four Divisions, viz., the Division of the Biological Sciences, the Division of the Humanities, the Division of the Physical Sciences, and the Division of the Social Sciences; (2) The Professional Schools, viz., the Divinity School, the Law School, the School of Business, the School of Social Service Administration, the Graduate Library School, and Rush Medical College; and (3) the University Extension (Home-Study Department).

The College.--The College provides the foundational work in arts, literature, and science for programs of advanced study in the four Divisions or in the Professional Schools. A first-year

student enters the College for what is generally called "junior-college" work. The College Certificate, attesting the award of the title of Associate in Arts, is given upon request when a student has pursued a full program of work for at least one academic year (three quarters) and has passed comprehensive examinations in the required work.

The Divisions.--The Divisions include what is generally called "senior-college" work and graduate study in arts, literature, and science. The degrees offered by one or more of the Divisions include S.B., A.B., S.M., A.M., and Ph.D. The Ph.B. is also offered (until the end of the Summer Quarter, 1938) for students who registered for work leading to the degree under the "old plan." A graduate of the College, or a student entering the University with work in advance of the first two undergraduate years, must meet the entrance requirements of the Division in which his field of interest lies.

The Professional Schools.--Graduates of the College may enter the School of Business, the School of Social Service Administration, the Law School, or the Divinity School to continue work toward a Bachelor's degree. Additional undergraduate work is required for admission to the Graduate Library School and the Rush Medical College. Each professional school determines its requirements for admission of students. While certain changes have been made between 1930-1931 and 1935-1936, these have resulted in no significant change in the administration of financial assistance to students.

Types of Aid

The types of aid offered by the University include: (1) scholarships, (2) fellowships, (3) assistantships, (4) tuition aid (tuition remissions and certain funds reserved for needy students not necessarily of high scholastic standing), (5) loan funds, (6) prizes, and (7) remunerative employment. The last two types of aid, prizes and remunerative employment, are omitted from consideration in the main body of this study, and will not be discussed in this Appendix.

Scholarships.--A summary of the types of scholarships offered to students in arts, literature, and science is given in Table LXVII. Several of these scholarships have been changed in

name between 1930-1931 and 1935-1936, the present titles being more accurate descriptions of the awards under the new organization.

TABLE LXVII

TYPES OF SCHOLARSHIPS AVAILABLE TO STUDENTS IN THE COLLEGE
AND IN THE DIVISIONS, 1935-1936

Name of Scholarship	Students Eligible
High-School Competitive Examination....	Entering freshman
One-Year Honor Entrance.....	Entering freshman
Two-Year Honor Entrance for Men.....	Entering freshman and second-year holders
Second-Year Honor.....	Second-year students (sophomores)
Divisional Honor Entrance.....	Third-year students (junior)
Junior-College Honor Entrance.....	Graduates of junior colleges
Junior-College Competitive.....	Graduates of junior colleges
Divisional Honor.....	Fourth-year students (senior)
Graduate Honor.....	Graduate
Service.....	Graduate
Endowed and annual.....	All classifications, except where limited by donor
Noyes Scholarship.....	All classifications
Trustees Half Scholarships.....	All classifications

Junior-College Competitive Scholarships, Junior-College Honor Entrance, and Trustees Half Scholarships have been added during the intervening period. The latter are largely the result of conditions accompanying the financial depression, when requests from students for financial assistance increased without a corresponding increase in income for aid. The Trustees Half Scholarships are available for students in the College, the Divisions, and the Professional Schools. The status of scholarships in the Professional Schools was not affected by the administrative reorganization.

Fellowships.--Three types of fellowships are available:
(1) University Fellowships, provided in all departments from the

general Funds of the University; (2) endowed and annual fellowships; and (3) research fellowships. Each Division and Professional School awards one or more of these types of aid. No important change in the types of fellowships or the method of their administration has been made between 1930-1931 and 1935-1936.

Assistantships.--Assistantships are awarded by several departments and Professional Schools. The nomination is made by the department or professional school to the appropriate Dean. These awards are similar in other respects to the conditions prevailing in 1930-1931.

Tuition remissions.--The terms upon which remission of tuition is granted are determined by the Board of Trustees. The regulations in force in 1935-1936 are given in the accompanying table. Members of the faculty and administrative officers and their wives and children, members of the faculties of co-operating secondary schools, and the staff of the Art Institute of Chicago, who were granted remission of all or a part of the tuition charges in 1930-1931, are no longer granted this courtesy.

TABLE LXVIII

SUMMARY OF THE REGULATIONS OF THE BOARD OF TRUSTEES
GOVERNING TUITION REMISSIONS, 1935-36

Status	Amount of Tuition Remission
Employee of the University.....	Half of fee for one course
Visitor with Ph.D. degree.....	Guest card issued without fee on recommendation of Dean
Staff of Field Museum.....	Entire fee

Reduction of tuition in the Divinity School, under the agreement in force between the University, the Divinity School, and the Baptist Theological Union, is administered by the Dean of the Divinity School. The President's Remission fund is administered as an aid fund by the Dean of Students. Other funds for student aid which do not require high scholastic standing, such as the Jackson Fund and a few small special funds, are administered by the Dean of Students.

Loans.--Student loans are under the financial administration of the Bursar of the University, and an assistant who handles most of the details of administration. The student may secure an application blank from his Dean or Dean of Students or from the office of the Bursar. The application requires the approval of both the educational and financial administrative officers. The office of the Registrar also certifies as to the academic standing of the applicant.

The form used in the application for all student loans in 1935-1936 is reproduced on page 169. Comparison with the form used in 1930-1931 indicates that the information available at the later date regarding the applicant gives a more detailed picture of the financial needs and plans of the student than was available when the original data for this study were gathered.

One new type of loan has been made available since 1930-1931. In 1931-1932 the Board of Trustees provided for "tuition loans," amounting to quarterly tuition or less. These loans, unlike other funds for this purpose, are not represented by any capital fund. The proceeds of the loans are vouchers applicable only to current tuition payments. The transaction is similar to an extension of credit on the tuition bill, except that it is handled on a loan basis rather than as an open account. The tuition loans are administered in the same routine as other loans. Notes may be renewed annually for as many as four years, with interest payable each year. The maximum total amount of tuition loans during any fiscal year is set by the Board of Trustees. The loans were begun because of the heavy demands made by students during the financial depression. The amount of "tuition loans" was largest in 1932-1933, when approximately \$100,000 was lent; for 1935-1936 the amount was approximately \$40,000.

Selection of Students Aided

The office of the Dean of Students of the University is the central agency around which much of the administration of financial assistance to students is centered. Deans of Students in the College and in most of the Divisions are concerned with the administration of student aid. Changes in the method of selecting students which have been made between 1930-1931 and

1935-1936 have, in general, reflect changes in other administrative practices. For example, the grade-point average was used in 1930-1931 to determine scholastic standing for the award of second-, third-, and fourth-year honor scholarships. Comprehensive examinations have replaced the course and credit system in the present College, so that performance on comprehensive examinations, rather than the grade-point average, now determines the scholastic rank for the award of honor scholarships to second, third, and fourth-year students.

The administrative reorganization has resulted in greater changes in arts, literature, and science than in the professional schools. Changes in the administration of student aid due to the "new plan" have been relatively slight in the professional schools.

The Committee on Fellowships and Scholarships.--The Committee on Fellowships and Scholarships is composed of the Dean of Students (Chairman), the Dean of the College, and the Deans of the Divisions and the Professional Schools. In practice the work of the Committee is decentralized, as far as the selection of students to receive aid is concerned. In selecting students, the Committee is primarily concerned with awards based on work in the Divisions.

Awards of fellowships and scholarships to graduate students in the Divisions, except those otherwise provided for by donors, are made by the various Deans upon recommendation of the departments, and with the approval of the Chairman of the Committee. Applications for these awards are made to the secretary of the Committee. The application form is shown on page 168. Graduate Honor and Divisional Honor scholarships are awarded by the Committee. The former award is based upon the work required for the Bachelor's degree, while the latter is based upon the work done in the first year of the Division. Neither of these scholarships requires an application.

Endowed and special scholarships and Trustees Half Scholarships to students in the Divisions are awarded on the basis of scholastic standing and financial need. The application blank, a copy of which is reproduced on page 166, shows the information available from the student.

The size of awards to Noyes Scholars tends to vary from year to year, depending on the income available from the endowment and the number of applicants. In 1935-1936 full tuition was

awarded qualified students whose applications were based on periods of military service of five months or more. Applications based on service of less than five months received no awards.

In order to care for special or unusual cases, certain funds are available for award by the Dean of Students or the Dean of Students in the College. The income from the Jackson Fund, special funds for self-supporting students, a portion of the Trustees Half Scholarships, and the President's tuition remission fund may be awarded in this manner. Announcement of awards in the College and the Divisions is made by the Dean of Students, who is ex-officio chairman of the Committee on Fellowships and Scholarships.

Scholarship Committee in the College.--The Scholarship Committee in the College is, in effect, a sub-committee of the Committee on Fellowships and Scholarships. It selects students in the College to receive aid, as well as the recipients of awards based on work done in the College. The Committee is composed of the Dean of Faculties of the University, the Assistant Dean of Students, the Dean of the College, the Dean of Students in the College, a departmental counselor, and a representative of the Board of Examiners.

Prospective students who apply for honor entrance scholarships furnish information on the application for admission to the College and the application for a scholarship. These forms are reproduced on pages 164 and 165. A rough allocation of the available honor entrance scholarships is made for award to residents of Chicago and to persons residing outside the city, on the basis of the number of applications. Applicants residing in Chicago are invited to visit the University and be interviewed by three members of a scholarship sub-committee, as well as take a scholastic aptitude test. Additional information is secured about non-resident applicants by correspondence with persons who know them. The final ranking of the applicants is based on all of the information available.

The High-School Competitive Examination Scholarships, awarded to first-year students entering the College, are based on the combined results of three one-hour examinations. The high-school subjects in which examinations are given are biology, chemistry, English, French, German, history, Latin, mathematics, physics, and Spanish. The examinations are administered for the

Scholarship Committee in the College by the Board of Examiners. They are given on the University campus each Spring, and in approximately twenty other centers where the number of competitors is sufficiently large. The Junior-College Competitive Scholarships are awarded on the basis of examinations given under the supervision of the Board of Examiners. Any junior college, with the approval of the Committee on Scholarships, may take part in the competitive examinations.

Honor scholarships to students in residence in the College are awarded on the basis of work done in the University and financial need. The application form in use (shown on page) requests detailed information regarding financial resources and needs. Scholastic rank for the second-year honor scholarship is determined on the basis of the number of comprehensive examinations taken in the first year and the grades received in them. Divisional Honor Scholarships, for third-year students, are based on the rank in the seven examinations required for the College Certificate. In computing scholastic rank from grades, A counts three points; B, two; C, zero; D, minus two; and F, minus three.

Endowed and special scholarships which are not otherwise provided for by the terms of the donors of funds are made by the Committee in the College if the student is enrolled in the College or has not completed sufficient work in a Division to furnish a basis for evaluation of his academic record. An application is required, and the awards are made on the basis of academic standing and financial need. The Board of Trustees Half Scholarships available to students in the College are also awarded by this Committee.

Co-ordination of Financial Aid

Two changes between 1930-1931 and 1935-1936 in the administration of financial assistance to students have tended to secure greater co-ordination between the various types of aid. The first is the appointment of the Dean of Students in the University, and similar officers in the College and in most of the Divisions and Professional Schools. The second is the collection of more detailed information regarding the financial assets and liabilities of the student. Applicants for loans and for most scholarships are requested to give the anticipated income from various sources, including other types of financial assistance from the University, and the purposes for which the income will be expended. The effort is made to balance the student's budget.

